

City and County of Honolulu

2010 Wastewater Consent Decree

Civil No. 94-00765 DAE-KSC

Annual Report

Year Four

(July 1, 2013 – June 30, 2014)



Prepared By:
The Department of Environmental Services

Submitted:
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Contents

Introduction	1
Annual Report Structure	1
A. Force Main Spill Contingency Program (Paragraph 11).....	1
Small Force Main Tankering (Paragraph 11.a).....	1
Large Force Mains (Paragraph 11.b).....	2
Flow Diversion Equipment (Paragraph 11.b.ii)	2
Flow Diversion Planning (Paragraph 11.b.iii).....	2
Lualualei Force Main (Paragraph 11.b.iv)	3
Spill Contingency Planning (Paragraph 11.c)	3
Small Force Main Spill Contingency Planning (Paragraph 11.c.i)	3
Large Force Main Spill Contingency Planning (Paragraph 11.c.ii)	4
Spill Contingency Plans Required by 2007 Stipulated Order (Paragraph 11.c.iii)	5
Drills and Annual Reviews of Spill Contingency Plans (Paragraph 11.c.iv)	6
B. Force Main Condition Assessments and Follow-Up Action Plans (Paragraph 12)	7
Condition Assessment Reports Pursuant to 2007 Stipulated Order (Paragraph 12.a)	7
Additional Condition Assessment Reports (Paragraph 12.b)	14
C. Force Main Maintenance and Spill Prevention Programs (Paragraph 13)	17
Operation and Maintenance Program (Paragraph 13.a).....	17
Overflow Structures (Paragraph 13.b).....	24
Cathodic Protection Systems (Paragraph 13.c)	25
Kaneohe Bay WWPS #2 Force Main (Paragraph 13.d)	25
D. Beachwalk Force Main Projects (Paragraph 14).....	26
E. Ala Moana Force Main Projects (Paragraph 15).....	26
F. Old Hart Street Force Main - Maintenance and Improvements (Paragraph 16).....	26
G. Kaneohe/Kailua Force Main Project (Paragraph 17).....	27
H. 1999 Final Sewer I/I Plan Projects (Paragraph 18)	28
Compliance Milestone: Complete Construction 12/31/2011 (Paragraph 18.b)	28
Compliance Milestone: Complete Construction 12/31/2013 (Paragraph 18.c).....	29
Compliance Milestone: Complete Construction 12/31/2014 (Paragraph 18.d)	30
Compliance Milestone: Complete Construction 12/31/2016 (Paragraph 18.e).....	32
Projects Requiring Further Study (Paragraph 18.f).....	35

Wet Weather I/I Assessment Update (Paragraph 18.g)	38
I. Gravity Main Condition Assessment (Paragraph 19)	40
J. Gravity Main Rehabilitation and Replacement Program (Paragraph 20).....	43
Rehabilitation and Replacement Plan (Paragraph 20.b)	43
Rehabilitation and Replacement Program for Years One through Three (Paragraph 20.c).....	43
Implementation of RR Plan for Gravity Mains (Paragraph 20.d).....	48
Banking of Excess Miles (Paragraph 20.e)	48
K. Gravity Main Cleaning and Maintenance Program (Paragraph 22)	50
Gravity Sewer Cleaning (Paragraph 22.a)	50
Chemical Root Control (Paragraph 22.b)	52
L. Commercial Fats, Oils, and Grease ("FOG") Control Program (Paragraph 23)	54
General Requirements (Paragraph 23.a)	54
No Discharge without Permit (Paragraph 23.a.i).....	54
Annual Inspections (Paragraph 23.a.ii)	54
Special Investigations (Paragraph 23.a.iii)	54
Enforcement (Paragraph 23.a.iv).....	55
DOH New Business Licenses (Paragraph 23.a.vi).....	55
Program Manual (Paragraph 23.b)	55
M. Pump Station Projects (Paragraph 24)	55
Beachwalk WWPS Condition Assessment (Paragraph 24.a)	55
Beachwalk Pump Station Upgrade (Paragraph 24.b)	56
Fort DeRussy Pump Station Upgrade (Paragraph 24.c)	56
Waimalu Pump Station Controller Upgrade (Paragraph 24.d).....	56
Wet Weather Storage (Paragraph 24.e)	56
Pump Station Overflow Structures (Paragraph 24.f)	57
Pump Station Operation and Maintenance Manuals (Paragraph 24.g)	57
Pump Station Operations Training (Paragraph 24.h)	57
N. Sewer Laterals (Paragraph 25)	58
Inventory of Lower Laterals (Paragraph 25.a)	58
Problem Lower Laterals (Paragraph 25.b)	58
Reporting of Lower Lateral Issues (Paragraph 25.c)	58
Corrective Action within 60 Days (Paragraph 25.d).....	58
Clean-out Cap Replacement Program (Paragraph 25.e)	58

Building Inspection Materials and Follow-up (Paragraph 25.f)	58
Smoke Testing and Follow-up (Paragraph 25.g)	59
O. Staffing Commitments (Paragraph 26).....	61
P. Equipment Commitments (Paragraph 27).....	61
Q. Odor Issues (Paragraph 28)	61
R. Spill Response, Monitoring, and Reporting (Paragraph 29)	62
S. Honouliuli Wastewater Treatment Plant (Paragraph 30)	62
T. Sand Island Wastewater Treatment Plant (Paragraph 31)	62
U. Treatment Plant Interim Effluent Limits (Paragraph 32)	62
V. Treatment Plant Operation and Maintenance (Paragraph 33)	62

Attachments

Attachment A. Pipe Segments in R&R Program

Attachment B. Problem Laterals Addressed in Year Four

Figures

Figure 1. CCTV Inspection Miles through June 30, 2014	40
Figure 2. Gravity Sewer Condition Assessment (July 1, 2013 – June 30, 2014)	42
Figure 3. Pipe Segments Proposed for Addition to Rehabilitation and Replacement Bank.....	49
Figure 4. Gravity Sewer Cleaning (July 1, 2013 through June 30, 2014)	51
Figure 5. Gravity Sewer Smoke Testing (July 1, 2013 through June 30, 2014).....	60

Tables

Table 1. Flow Diversion Equipment Requirements	2
Table 2. Flow Diversion Planning Requirements	2
Table 3. Flow Diversion Construction Requirements	3
Table 4. Lualualei Force Main Requirements	3
Table 5. Small Force Main Spill Contingency Planning Requirements	3
Table 6. Large Force Main Spill Contingency Planning Requirements	4
Table 7. Spill Contingency Plans Required by 2007 Stipulated Order	5
Table 8. Requirements for Spill Contingency Plan Drills.....	6
Table 9. Condition Assessment Reports Pursuant to 2007 Stipulated Order.....	7
Table 10. Ala Moana Force Main No. 2 Repairs, Rehabilitation and Improvements	7
Table 11. Ala Moana Force Main No. 2 Future Assessments	8
Table 12. Ala Moana Force Main No. 2 Operation and Maintenance Elements.....	8
Table 13. Beachwalk Force Main Repairs, Rehabilitation and Improvements.....	9
Table 14. Beachwalk Force Main Future Assessments.....	9
Table 15. Beachwalk Force Main Operation and Maintenance Elements	9
Table 16. Hart Street Force Main Repairs, Rehabilitation and Improvements	10
Table 17. Hart Street Force Main Future Assessments	11
Table 18. Hart Street Force Main Operation and Maintenance Elements.....	11
Table 19. Kahala Force Main Repairs, Rehabilitation and Improvements	11
Table 20. Kahala Force Main Future Assessments	12
Table 21. Kahala Force Main Operation and Maintenance Elements.....	12
Table 22. Kaneohe/Kailua Force Main Repairs, Rehabilitation and Improvements.....	12
Table 23. Kaneohe/Kailua Force Main Future Assessments.....	12
Table 24. Kaneohe/Kailua Force Main Operation and Maintenance Elements	12
Table 25. Waimalu Force Main Repairs, Rehabilitation and Improvements.....	13
Table 26. Waimalu Force Main Future Assessments.....	13
Table 27. Waimalu Force Main Operation and Maintenance Elements	14
Table 28. Additional Condition Assessment Reports.....	14

Table 29. Ahuimanu Force Main Repairs, Rehabilitation and Improvements	15
Table 30. Ahuimanu Force Main Future Assessments.....	15
Table 31. Aliamanu No. 1 and 2 Force Main Future Assessments	15
Table 32. Aliamanu No. 1 and 2 Force Main Operation and Maintenance Elements.....	16
Table 33. Kailua Road Force Main Repairs, Rehabilitation and Improvements	16
Table 34. Kaneohe Bay No. 3 Force Main Repairs, Rehabilitation and Improvements.....	16
Table 35. Kunia Force Main Future Assessments	17
Table 36. Force Main Operation and Maintenance Program Elements.....	17
Table 37. Force Main Overflow Structure Requirements.....	24
Table 38. Cathodic Protection System Requirements	25
Table 39. Kaneohe Bay WWPS #2 Force Main Requirements.....	25
Table 40. Beachwalk Force Main Requirements	26
Table 41. Ala Moana Force Main Assessment Requirements	26
Table 42. Ala Moana Force Main Construction Requirements.....	26
Table 43. Hart Street Force Main Requirements.....	27
Table 44. Kaneohe/Kailua Force Main Requirements	27
Table 45. Paragraph 18.b Requirements (Complete Construction December 31, 2011).....	28
Table 46. Paragraph 18.c Requirements (Complete Construction December 31, 2013)	29
Table 47. Paragraph 18.d Requirements (Complete Construction December 31, 2014).....	30
Table 48. Paragraph 18.e Requirements (Complete Construction December 31, 2016).....	32
Table 49. Paragraph 18.f Requirements	35
Table 50. Wet Weather I/I Assessment Update Schedule Requirements.....	39
Table 51. Wet Weather I/I Assessment Update Submittal Requirements.....	39
Table 52. Gravity Main Condition Assessment Requirements	41
Table 53 Rehabilitation and Replacement Plan.....	43
Table 54. Appendix H Requirements	43
Table 55 Rehabilitation and Replacement Miles – Years Four through Ten	48
Table 56 Banked RR Miles.....	48
Table 57. Gravity Sewer Cleaning	50

Table 58. Chemical Root Control Requirements	52
Table 59. Beachwalk WWPS Condition Assessment.....	55
Table 60. Pump Station Overflow Structure Requirements	57
Table 61. Pump Station Operations Training.....	57
Table 62. Staffing Commitments	61
Table 63. Equipment Commitments	61

Acronyms and Abbreviations

Acronym or Abbreviation	Description
ACP	Asbestos Cement Pipe
ARV	Air Release Valve
BWS	Board of Water Supply
CA	Condition Assessment
CCH	City & County of Honolulu
CCP	Concrete Cylinder Pipe
CCTV	Closed-Circuit Television
CD	Global Consent Decree - signed December 17, 2010
CIP	Capital Improvement Program
CIP	Cast Iron Pipe
CIPP	Cured In Place Piping
CMMS	Computerized Maintenance Management System
COR	Corporation Counsel - CCH
CSM	Division of Collection System Maintenance
CWA	Clean Water Act
DDC	Department of Design and Construction
DFM	Department of Facility Maintenance
DIP	Ductile Iron Pipe
DOH	State of Hawaii Department of Health
DOT	State of Hawaii Department of Transportation
DPP	Department of Planning and Permitting
ENV	Department of Environmental Services
EPA	United States Environmental Protection Agency
EPS	Effluent Pump Station
EQ	Division of Environmental Quality
FCA	Flange Coupling Adaptor
FM	Force Main
FOG	Fats, Oils and Grease
FSE	Food Service Establishment

Acronym or Abbreviation	Description
FTE	Full-Time Equivalent
GCD	Global Consent Decree - signed December 17, 2010
GI	Grease Interceptor
GIS	Geographic Information Systems
GM	Gravity Main
GRD	Grease Removal Device
HDPE	High Density Polyethylene
I/I	Infiltration and Inflow
IDIQ	Indefinite Delivery, Indefinite Quantity
IPS	Influent Pump Station
LOW	Letter of Warning
M&C	Department of Environment Services, Division of Environmental Quality, Monitoring and Compliance Branch
MG	Million Gallons
MGD	Million Gallons per Day
MH	Man Hole
N/A	Not applicable
NASSCO	National Association of Sewer Service Companies
NOV	Notice of Violation
NTP	Notice to Proceed
O&M	Operation and Maintenance
PACP	Pipeline Assessment and Certification Program
PM	Preventative Maintenance
PMH	Pressure Man Hole
POTW	Publicly Owned Treatment Works
PS	Pump Station
PTF	Preliminary Treatment Facility
PVC	Polyvinyl Chloride
R&R	Rehabilitation and Replacement
RC	Department of Environmental Services, Division of Environmental Quality, Regulatory Control Branch

Acronym or Abbreviation	Description
RCP	Reinforced Concrete Pipe
Rehab	Rehabilitation
ROW	Right-of-way
SCADA	Supervisory Control and Data Acquisition
SCP	Spill Contingency Plan
SMH	Sewer Man Hole
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
STL	Steel
T&D	Treatment & Disposal - CCH
TBD	To Be Determined
TDH	Total Dynamic Head
UT	Ultrasonic Testing
WDV	Waste Discharge Violation
WTD	Division of Wastewater Treatment and Disposal
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant

Introduction

On December 17, 2010 the Consent Decree, subsequently amended, was entered among the City and County of Honolulu, the United States Environmental Protection Agency, and the Hawaii Department of Health and several non-governmental organizations. The consent decree outlines a program of improvements to the wastewater collection and treatment systems on the island of Oahu.

The City and County of Honolulu (CCH) has prepared this Annual Report pursuant to Paragraph 34 of the First Amended Consent Decree (CD) to describe the progress achieved in implementing these improvements. Paragraphs 34.c and 34.d of the CD describe the information that is to be included in the Annual Report. This Annual Report summarizes CCH's progress during Year Four of the CD ending on June 30, 2014.

This Annual Report is available on CCH's web site at <http://www1.honolulu.gov/env/www/>.

Annual Report Structure

The content and structure of the Annual Report are based on the requirements set forth in Paragraphs 11 through 33. The Annual Report's sections appear in alphabetical order ("A" through "V") and correspond to Paragraphs 11 through 33 of the CD; however, Paragraph 21 of the CD addresses the modification of construction deadlines, and since there are no modifications to report, this paragraph is not included in the Annual Report.

The CD identifies several types of requirements, including

- Compliance milestones
- Interim compliance milestones
- Performance requirements
- Annual performance requirements
- Other CD due dates.

A. Force Main Spill Contingency Program (Paragraph 11)

Small Force Main Tankering (Paragraph 11.a)

CCH has maintained no less than 1.6 million gallons per day (mgd) tankering capacity in good working order at all times. In the event a CCH vehicle is unavailable for any reason, CCH maintains a list of contractors available to provide tankering capacity. In Year Four CCH did not utilize contractors to provide tankering capacity during small force main spill events.

Large Force Mains (Paragraph 11.b)**Flow Diversion Equipment (Paragraph 11.b.ii)****Table 1. Flow Diversion Equipment Requirements**

Requirement	Due Date	Status
Awa Street Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Hart St. pump station.
Fort DeRussy Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Beachwalk pump station.
Kaneohe Bay Force Main No. 1 Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.
Kunia Force Main Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.

Flow Diversion Planning (Paragraph 11.b.iii)**Table 2. Flow Diversion Planning Requirements**

Requirement	Due Date	Status
Kamehameha Highway Force Main Flow Diversion Plan	12/17/2011	CCH submitted the Kamehameha Highway Force Main Flow Diversion Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012.
Ewa Beach Force Main Flow Diversion Plan	12/31/2014	In progress.
Halawa Force Main Flow Diversion Plan	12/31/2014	In progress.
Waimalu Force Main Flow Diversion Plan	12/31/2015	CCH submitted the Waimalu Force Main Flow Diversion Plan on 5/16/2013. Submitted revised construction schedule on 10/21/2013. EPA and DOH approved the Plan and revised construction schedule on 12/20/2013.

Table 3. Flow Diversion Construction Requirements

Requirement	Compliance Milestone	Status
Kamehameha Highway Force Main Rehabilitation - Slip lining	Design NTP: 07/01/2017; Construction NTP: 12/31/2018; Complete Construction: 06/30/2020	Planning in progress.

Lualualei Force Main (Paragraph 11.b.iv)**Table 4. Lualualei Force Main Requirements**

Requirement	Compliance Milestone	DDC Serial Number	Status
Lualualei Parallel Dry Force Main Construction	Complete Construction: 12/31/2013	08-0100	Construction completed 11/29/2013.

Spill Contingency Planning (Paragraph 11.c)**Small Force Main Spill Contingency Planning (Paragraph 11.c.i)****Table 5. Small Force Main Spill Contingency Planning Requirements**

Requirement	Due Date	Status
Small Force Main Spill Contingency Plan - Programmatic	12/17/2011	CCH submitted the Small Force Main Flow Contingency Plan - Programmatic on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Plans, modified for site specific conditions, are maintained at each Pump Station.

Large Force Main Spill Contingency Planning (Paragraph 11.c.ii)**Table 6. Large Force Main Spill Contingency Planning Requirements**

Requirement	Due Date	Status
Ewa Beach Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Halawa Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kamehameha Highway Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Lualualei Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kailua Heights Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Kailua Road Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Ahuimanu Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Niu Valley Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.

Spill Contingency Plans Required by 2007 Stipulated Order (Paragraph 11.c.iii)

Table 7. Spill Contingency Plans Required by 2007 Stipulated Order

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Beachwalk Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Hart Street Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kahala Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kaneohe/Kailua Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Waimalu Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

Drills and Annual Reviews of Spill Contingency Plans (Paragraph 11.c.iv)

Table 8. Requirements for Spill Contingency Plan Drills

Requirement	CD Year	Compliance Milestone	Status
All of the following must be drilled by 6/30/2016:			
Kaneohe/Kailua Force Main Spill Contingency Plan Drill	Year One	6/30/2011	CCH performed a drill of the spill contingency plan on the Kaneohe/Kailua force main on 9/16/2010. CCH prepared a summary report and submitted it to EPA and DOH on 3/30/2011. Considering the timing of the conditional approval of the original six spill contingency plans, and that the Kaneohe/Kailua Force Main Spill Contingency Plan was approved subject to one minor condition, EPA and DOH agreed to accept this drill in satisfaction of the Year One requirement.
Kahala Force Main Spill Contingency Plan Drill	Year Two	6/30/2012	CCH performed a drill of the spill contingency plan on the Kahala force main on 6/21/2012.
Hart Street Force Main Spill Contingency Plan Drill	Year Three	6/30/2013	CCH performed a drill of the spill contingency plan on the Hart Street force main on 6/5/2013.
Ala Moana Force Main No. 2 Spill Contingency Plan Drill	Year Four	6/19/2014	CCH performed a drill of the spill contingency plan on the Ala Moana No. 2 force main on 6/19/2014.
Spill Contingency Plan Drills for Beachwalk Force Main, and Waimalu Force Main	Year Five	6/30/2015	
	Year Six	6/30/2016	
All of the following must be drilled by 6/30/2020:			
Spill Contingency Plan Drills for Ahuimanu Force Main, Ewa Beach Force Main, Halawa Force Main, Kailua Heights Force Main, Kailua Road Force Main, Kamehameha Highway Force Main, Lualualei Force Main, and Niu Valley Force Main	Year Seven	6/30/2017	
	Year Eight	6/30/2018	
	Year Nine	6/30/2019	
	Year Ten	6/30/2020	
Note: SCPs will be reviewed annually and revised as necessary to address any changed conditions.			

B. Force Main Condition Assessments and Follow-Up Action Plans (Paragraph 12)

Condition Assessment Reports Pursuant to 2007 Stipulated Order (Paragraph 12.a)

Table 9. Condition Assessment Reports Pursuant to 2007 Stipulated Order

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Beachwalk Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Hart Street Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kahala Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kaneohe/Kailua Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Waimalu Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.

Table 10. Ala Moana Force Main No. 2 Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
New Pressure manhole (PMH) at WWPS	Complete Construction: 12/31/2008	Construction completed 4/15/2008.
Horizontal bend at Station 23+00 (Bend #1) interim repair	Complete Construction: 09/30/2009	Construction completed 8/9/2009.
Horizontal bend at Station 23+00 (Bend #1) permanent repair	Design NTP: 08/03/2009; Complete Construction: 09/30/2012	Repair completed 8/14/2012.

Requirement	Compliance Milestone	Status
Cathodic protection system - replace rectifier and anode bed	Complete Construction: 6/17/2014	Time extension submitted (11/15/13) and approved by EPA/DOH (1/13/14) for Complete Construction by 6/17/14. This requirement is also addressed in CD Paragraph 13.c. Construction completed 6/16/2014.
PS#2 Surge Control Improvements	Design NTP: 12/31/2015; Complete Construction: 12/31/2020	

Table 11. Ala Moana Force Main No. 2 Future Assessments

Requirement	Due Date	Status
Inspect remaining segments of FM No. 2	9/30/2009	Inspection of Force Main No. 2 from Pressure Manhole #2A to the Ala Moana WWPS No. 2 was completed 8/18/2009. Inspection of 800-ft segment of Force Main No. 2 on Sand Island from Pressure Manhole #2C to Pressure Manhole #2E was completed 9/22/2009.
Settlement Monitoring Plan	9/30/2009	Settlement monitoring plan completed 8/27/2009 and updated 12/29/2009.
PS #2 Venturi meter UT testing	12/31/2012	Venturi meter UT testing completed 6/29/2011.
Ala Moana Force Main No. 2 Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.

Table 12. Ala Moana Force Main No. 2 Operation and Maintenance Elements

Requirement	Frequency	Status
Complete survey of cathodic protection system and rectifier adjustment as necessary	Annual	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5.
Exercise venturi pit gate valve	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.

Requirement	Frequency	Status
Inspect and exercise manual air bleeders	Quarterly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Interim Operation of PS#1/FM#1 System	Continuous	Normal operation is Force Main No. 1 lead and Force Main No. 2 lag as needed during wet weather and emergencies, until the surge improvements at PS#2 are completed.
Measure and record voltage and current output of rectifier	Monthly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5
Venturi Meter Backflush	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Clean grease at Sand Island Headworks entrance 78" FM	One-time	Grease removal completed 7/11/2012.

Table 13. Beachwalk Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace three existing air bleeder assemblies, at approximate locations Stations 17+95, 37+60 and 558+62.	Complete Construction: 12/31/2011	Completed 8/26/2011.

Table 14. Beachwalk Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Beachwalk valve vault condition assessment report was completed on 8/24/2012.
Force main condition assessment report	9/30/2017	

Table 15. Beachwalk Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.

Requirement	Frequency	Status
Monitor excavations near thrust block at Station 8+37	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Settlement Protection Program	Continuous	ENV has generated a 500-foot buffer in GIS around the force main and provided this information to Department of Planning and Permitting (DPP). When projects are proposed within this corridor, DPP consults with DDC on potential impacts to the force main.
Slow draining and filling operations	During draining and filling	This work is performed as part of standard operations.

Table 16. Hart Street Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Coat interior of RCP/HDPE transition flange coupling adaptor (FCA) near Sand Island WWTP	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.
Install internal pipe seals at approximate locations Station 47+87, 31+23, 31+07, and 30+91.	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.
Install PMH vaults and air bleeders at approximate locations Station 18+15, 28+80, and 43+87.	Design NTP: 12/31/2012; Complete Construction: 12/31/2016	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.
Connect new WWPS to old FM	Design NTP: 12/31/2011; Complete Construction: 12/31/2013	Planning and Design NTP issued 12/31/2010 as part of project 10-0090, Phase 1. Construction completed 12/27/2013.

Table 17. Hart Street Force Main Future Assessments

Requirement	Due Date	Status
Follow-up internal inspection of the FM	12/31/2019	
Inspect external FM appurtenances	12/31/2019	

Table 18. Hart Street Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Exercise sluice gate at Sand Island WWTP and 12-inch blow-off valve at Station 43+33	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Draining and filling operations conducted slowly	During draining and filling	This work is performed as part of standard operations.

Table 19. Kahala Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Install PVC liner in discharge manhole	Complete Construction: 03/31/2012	Completed 1/25/2012.
Remove air injection piping connection and pressure grout surrounding soil	Complete Construction: 12/31/2012	Completed 8/31/2010.
Re-coat pipe under Kahala Avenue Bridge	Complete Construction: 12/31/2012	Completed 8/7/2012.

Table 20. Kahala Force Main Future Assessments

Requirement	Due Date	Status
24" diameter FM condition assessment report	9/30/2018	

Table 21. Kahala Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavation near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Pipe coating inspection on exposed pipes on the bridge and in the vaults	Every two years	This inspection is a routine part of the Force Main O&M Program, Section 4.4.6.

Table 22. Kaneohe/Kailua Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Recoat above-ground piping at Kaneohe EPS discharge pipe	Complete Construction: 12/31/2015	Recoating completed 8/7/2012.

Table 23. Kaneohe/Kailua Force Main Future Assessments

Requirement	Due Date	Status
Air Relief Valve (ARV) study	6/30/2012	ARV Study was completed on 6/28/2012.

Table 24. Kaneohe/Kailua Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Adjust check valves	Per CCH O&M Plan for Kaneohe EPS	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.

Requirement	Frequency	Status
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.

Table 25. Waimalu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace air bleeder assembly at Station 388+50	Complete Construction: 12/31/2016	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement extended in light of the planned construction of a new second force main.

Table 26. Waimalu Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Waimalu valve vault condition assessment report was completed on 8/24/2012.
Cast iron condition assessment report	9/30/2013	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement eliminated in light of the planned construction of a new second force main. Modification approved by EPA and DOH on 1/13/2014.
Force Main CCTV from discharge manhole at time of air bleeder appurtenance replacement	12/31/2016	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement extended in light of the planned construction of a new second force main. Modification approved by EPA and DOH on 1/13/2014.

Requirement	Due Date	Status
Force main condition assessment report	9/30/2018	

Table 27. Waimalu Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect, flush, and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust block at Station 387+25	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.

Additional Condition Assessment Reports (Paragraph 12.b)

Table 28. Additional Condition Assessment Reports

Requirement	Due Date	Status
Ahuimanu Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Aliamanu No. 1 and 2 Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Lualualei Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Awa Street Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.
Kailua Road Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.

Requirement	Due Date	Status
Kaneohe Bay No. 3 Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.
Kunia Force Main Condition Assessment Report	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.
Ewa Beach Force Main Condition Assessment Report	12/31/2014	In progress.
Halawa Force Main Condition Assessment Report	12/31/2014	In progress.

Table 29. Ahuimanu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Manhole Rehabilitation	Complete Construction: 12/31/2014	Rehabilitation completed 4/11/2012.
Pipe Repair Corrosion	Complete Construction: 12/31/2015	Design in progress.
Pipe Repair Liner	Complete Construction: 12/31/2018	Design in progress.

Table 30. Ahuimanu Force Main Future Assessments

Requirement	Due Date	Status
ARV Valve Study	4/30/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.
Future Assessment of Excavation Pit	12/31/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.

Table 31. Aliamanu No. 1 and 2 Force Main Future Assessments

Requirement	Compliance Milestone	Status
Future Assessment	12/31/2015	

Table 32. Aliamanu No. 1 and 2 Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Excavation under FM shall be filled with CLSM to within 6-inches of FM bottom or by other suitable structural support, then bedding of FM shall be replaced to entirely cover the FM.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Inspect and Repair Valves	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
No excavation allowed within 20 feet of these FM bends.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Replace lost bedding based on CCH Standards on excavations adjacent to FM. Force Main Cleaning	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Force Main Cleaning	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 6.2.4.

Table 33. Kailua Road Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Replace the unjacketed cast iron section of FM.	Design NTP 12/31/2015 Construction Completion 6/30/2018	

Table 34. Kaneohe Bay No. 3 Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Replace pipe section with interior longitudinal fracture, 41 ft upstream from discharge manhole	12/31/2014	Construction in progress.

Table 35. Kunia Force Main Future Assessments

Requirement	Compliance Milestone	Status
Additional Condition Assessment	6/31/2016	

C. Force Main Maintenance and Spill Prevention Programs (Paragraph 13)

Operation and Maintenance Program (Paragraph 13.a)

CCH is implementing the Force Main O&M program outlined in CD Appendix E. The specific requirements in CD Appendix E are summarized below.

Table 36. Force Main Operation and Maintenance Program Elements

Section	Requirement	Frequency	Status
E-4.1	Force Main Surface Marking	Continuous	Force Main markers were installed on all exposed force mains by December 31, 2011. EPA and DOH have agreed that buried and underwater force mains do not need to be marked. Appendix E will be revised accordingly.
E-4.2	Force Main Location Information	Continuous	DPP issues trenching permits for projects in CCH rights-of-way. DPP notifies DDC when underground activities are to be conducted near a force main. DDC provides inspectors to verify that measures are being implemented to protect force mains.

Section	Requirement	Frequency	Status
E-4.3	Force Main Performance Testing	12 months	Performance Testing Procedures have been developed for conducting annual force main performance tests and have been finalized for adoption. Parameters associated with the performance of the force mains will be monitored and evaluated for comparison to both design conditions and previous performance evaluations. Initial performance tests were completed on all force mains by 12/17/2011 and follow-up testing was completed 6/21/2012. Force main performance testing was completed on 12/17/2013. Due to construction activity performance testing was not conducted on the Pearl City, Waipahu, Lualualei, Fort DeRussy and Enchanted Lakes force mains; performance testing on these force mains will resume after construction completion.
E-4.4.1	Force Main Right-of-Way	3 - 6 months for buried and elevated; 5 years for underwater	Rights-of-way inspections were performed on all buried and elevated force mains during Year Four. Inspection log sheets have been developed to provide standardized procedures and data collection.

Section	Requirement	Frequency	Status
E-4.4.2	Force Main Air and Vacuum Relief Valves - Inspect, Test, and Flush	3 months (or as determined based on field observations)	ARVs were visually inspected during Year Four. Valves that were found to be non-functioning or intentionally kept permanently closed were removed from the list of valves to be exercised and flushed, but they continue to be visually inspected. Based on test data and other information, all ARVs will be considered either for replacement with manual air bleed valves or replacement in kind. Work orders for the inspections are generated from CCH's maintenance management system, and inspection log sheets have been developed to provide standardized procedures and data collection.
E-4.4.3	Force Main Isolation (Inlet) and Blow-Off Valves	12 months	Inspection and exercising of isolation valves continues to be a standard procedure that is performed on a weekly to monthly basis. All functioning isolation valves were exercised during Year Four. Non-functioning isolation valves are evaluated for possible repair or replacement. Inspection log sheets have been developed to provide standardized procedures and data collection. Inspection of blow-off valves is being conducted on an annual basis. All blow-off valves are intentionally kept permanently closed.
E-4.4.4	Force Main Significant Rainfall Event (SRE)	As needed	CCH has identified force mains that could potentially be subject to SRE conditions. Inspections of the SRE force mains will be completed within 48 hours after cancellation of a Flood Warning. In Year Four there were 6 field-verified inspections on 10/11/2013, 10/14/2013, 11/7/2013, 11/10/2013, 12/15/2013 and 5/25/2014.

Section	Requirement	Frequency	Status
E-4.4.5	Force Main Corrosion Protection	Electrolysis stations: 12 months; Sacrificial anodes: 3 months; Impressed current: 3 months (or as determined based on field observations)	A study of the condition of the known cathodic protection systems has been completed, which included initial inspections of the systems on the Ala Moana, Pearl City, and Waipahu Force Mains. These three systems will have repairs performed as part of the requirements in CD paragraph 13.c. Corrosion protection systems that have been determined to be non-functional are considered in a "non-functional" mode. Construction of Ala Moana and Pearl City Cathodic Protection systems was completed on 6/16/14.
E-4.4.6	Force Main Pipe and Discharge Manhole/Structure Condition Including Coating	12 months	Visual inspections of the internal pipe at the discharge manhole/structure and the discharge manhole/structure is done on an annual basis. Visual inspections of all discharge manholes and pipes were completed by 10/30/2013.

Section	Requirement	Frequency	Status
E-4.5.1	Force Main Sulfide Monitoring	12 months	Sulfide monitoring, either through atmospheric hydrogen sulfide monitoring or total dissolved sulfides of the effluent, is conducted at the discharge manhole/structure of each force main on an annual basis. Data collected is compiled and reviewed by a qualified corrosion engineer. Atmospheric hydrogen sulfide monitoring was completed at each discharge structure. CCH completed an initial measurement at each discharge manhole by 12/17/2011. Additional monitoring was performed at eight (8) discharge structures by 5/21/2012, and a table-top exercise was performed to look at configuration of the discharge structure. Year Three monitoring was completed by 10/30/2013. Monitoring for Year Four will be completed by 12/17/2014. Data will be analyzed and compared against the baseline data.
E-4.5.2	Pump Stations with Single Force Mains	Weekly	As part of the standard procedures currently employed by CCH, force mains associated with pump stations with a single force main are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second. Procedures include allowing the wet well to fill and then turning on multiple pumps to achieve the required velocity. Records of the flushing event are recorded in log books at the pump stations.

Section	Requirement	Frequency	Status
E-4.5.3	Pump Stations with Multiple Force Mains	Weekly (each force main)	As part of the standard procedures currently employed by CCH, force mains associated with pump stations with multiple force mains are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second, so that each force main is flushed every other week. Procedures include allowing the wet well to fill and then turning on multiple pumps to achieve the required velocity. Valves are opened and/or closed to isolate and flush multiple force mains. Records of the flushing event are recorded in log books at the pump stations.
E-5	Emergency Operations and Emergency Recovery Features	As needed	As part of the standard procedures currently employed by CCH, emergency operations and procedures are undertaken in the event of a force main failure. Emergency operations and procedures are included in the spill contingency plans and flow diversion plans and will be included in additional spill contingency plans and flow diversion plans to be developed.
E-5.1	Force Main All-Weather Access to Valves, Pressure Manholes and Discharge Manholes/Structures	Continuous	CCH determined that all-weather access to valves, pressure manholes and discharge manholes/structures at all locations for personnel or vehicles to perform repairs to the force main system are in place.

Section	Requirement	Frequency	Status
E-5.2	Force Main Pressure Manholes	As needed on newly constructed and rehabilitated force mains	Pressure manholes, spaced at approximately every 1,000 feet as determined by the design conditions, will be considered on newly constructed force mains. When rehabilitation of an existing force main occurs, pressure manholes will be considered and installed as needed where appropriate. Pressure manholes may not be appropriate on systems with backup force mains or other spill contingency plans.
E-6.1	Predictive Maintenance	As issues are identified.	Data collected from the ROW inspections, pipe and discharge manhole/structure inspections, and effluent sulfide monitoring will be used to hone the predictive maintenance program.
E-6.2	Force Main Preventative Maintenance	Continuous	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures.
E-6.2.4	Force Main Preventive Maintenance - Force Main Cleaning	Varied	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures. Data gathered from annual performance testing is reviewed, and methods and frequencies of force main cleaning are validated and/or updated.
E-6.3	Force Main Corrective Maintenance	Continuous	As part of the standard procedures currently employed by CCH, corrective maintenance procedures are followed such that planned repairs are completed as categorized and prioritized within the WTD work order system.

Section	Requirement	Frequency	Status
E-6.4	Force Main Reactive Maintenance	Continuous	As part of the standard procedures currently employed by CCH, reactive maintenance procedures are followed such that unplanned repairs are completed as categorized and prioritized within the WTD work order priority system. Unplanned reactive maintenance can be a Priority 5 if the repair is considered an Emergency/Regulatory Violations/Safety concern, or a Priority 4 if the repair is considered as Urgent.
E-6.5	Force Main Spare Parts	Continuous	As part of the standard procedures currently employed by CCH, an inventory of spare parts is maintained in the store rooms of the various regions in order to provide timely support for maintenance and repairs. The spare parts list is based on the asset management listings, and the repair lists in the spill contingency plans. As parts are deployed for use, the inventory is replenished.

Overflow Structures (Paragraph 13.b)

CCH updated its design standards to suspend sections related to overflow structures. A letter dated March 11, 2009, to all design consultants in CCH's consultant database announced the change. The letter and design standards are on the ENV website. The letter suspended the sections of the design standards that referred to designed overflow structures.

Table 37. Force Main Overflow Structure Requirements

Requirement	Due Date	Status
Force Main Overflow Structure Design Standards Update	12/17/2010	Completed. Letter issued 3/11/2009.
Force Main Overflow Structure Report	12/17/2011	CCH submitted the Force Main Overflow Structure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
Force Main Overflow Structure Closure Project	2/12/2013	All work was completed prior to 2/12/2013.

Cathodic Protection Systems (Paragraph 13.c)

CCH submitted a study of existing Cathodic Protection Systems installed for Ala Moana, Pearl City, and Waipahu force mains to EPA and DOH on June 17, 2011. CCH is proceeding with construction as necessary.

Table 38. Cathodic Protection System Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Ala Moana Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Pearl City Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Waipahu Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Ala Moana Force Main Cathodic Protection Project	12/17/2013	08-0565	Construction completed 6/16/2014.
Pearl City Force Main Cathodic Protection Project	6/17/2014	08-0565	Construction completed 6/16/2014.
Waipahu Force Main Cathodic Protection Project	6/17/2014 Requested Extension to 8/17/2015	08-0565	Construction in progress. 6/26/2014 CCH requested an extension to 8/17/2015 for construction completion due to U.S. Navy permit approval and anticipated restrictions due to construction location being in a munitions "blast zone". Waiting response from EPA/DOH.

Kaneohe Bay WWPS #2 Force Main (Paragraph 13.d)

Table 39. Kaneohe Bay WWPS #2 Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Kaneohe Bay WWPS No. 2 Force Main	Design NTP: 12/31/2013; Construction NTP: 12/31/2015; Complete Construction: 12/31/2016	08-0744	Design NTP issued 12/19/2013. Design in progress.

D. Beachwalk Force Main Projects (Paragraph 14)

Table 40. Beachwalk Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Beachwalk Force Main Construction of Permanent Force Main	Original Completion Milestone: 12/31/2012; Complete Construction: 04/12/2013	00-0519	Construction completed 3/28/2013.

E. Ala Moana Force Main Projects (Paragraph 15)

Table 41. Ala Moana Force Main Assessment Requirements

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.
Perform 2020 Condition Assessment	6/30/2020	

Table 42. Ala Moana Force Main Construction Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Ala Moana Force Main No. 3 Construction	Construction NTP: 07/31/2012; Complete Construction: 12/31/2014	06-0065	Construction NTP issued 11/28/2011. Construction in progress.

F. Old Hart Street Force Main - Maintenance and Improvements (Paragraph 16)

CCH is proceeding with construction of a permanent connection between the Old Hart Street Force Main and the Hart Street WWPS to facilitate switching flows to the Old Hart Street Force Main more quickly for use of the Old Hart Street Force Main as a backup for the Hart Street WWPS. CCH is maintaining the Old Hart Street Force Main as a backup to handle emergency flows to the extent possible.

Table 43. Hart Street Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Connect new WWPS to old FM	Construction NTP: 12/31/2011; Complete Construction: 12/31/2013	10-0090	Planning and Design NTP issued 12/31/2010 as part of project 10-0090, Phase 1. Construction completed 12/27/13.

G. Kaneohe/Kailua Force Main Project (Paragraph 17)

The First Amended Consent Decree, entered March 27, 2012, provided for the construction of a Kaneohe-Kailua gravity tunnel and an associated influent pump station in lieu of a new force main and storage projects in Kaneohe and Kailua.

Table 44. Kaneohe/Kailua Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Tunnel Sizing Methodology Report	04/12/2012	None	CCH submitted a Tunnel Sizing Methodology Report on 4/12/2012.
Kailua WWTP Tunnel Influent Pump Station	Design NTP: 06/30/2012; Construction NTP: 12/31/2015; Complete Construction: 06/30/2018	None	Planning & Design NTP issued 4/30/2012. Design in progress.
Kaneohe/Kailua Tunnel Program	Design NTP: 06/30/2012; Construction NTP: 12/31/2014; Complete Construction: 06/30/2018	11-0241	Planning & Design NTP issued 4/30/2012. Construction NTP issued 1/6/2014.
Kaneohe/Kailua Force Main Supplemental Condition Assessment	12/31/2014	None	In progress.

Requirement	Compliance Milestone	DDC Serial Number	Status
Kaneohe/Kailua Force Main and Kaneohe Pretreatment Facility Pump Station 2-Yr Residual Operation Period	06/30/2018	None	

H. 1999 Final Sewer I/I Plan Projects (Paragraph 18)

The projects in Paragraph 18 were originally identified in the 1999 Infiltration/Inflow (I/I) Plan. These projects have changed over time as the result of further planning and design efforts by CCH. By tracking the individual sewer segments associated with each CD line item, CCH is able to accurately report on the status of each CD requirement.

Compliance Milestone: Complete Construction 12/31/2011 (Paragraph 18.b)

CCH maintains a database of the sewer segments that are associated with each of these projects, so that the history of each project and each sewer segment can be tracked. This database was used to define the sewer segments that are included in the three projects in Paragraph 18.b.

Table 45. Paragraph 18.b Requirements (Complete Construction December 31, 2011)

Requirement	DDC Serial Number	Status
SI-CS-05 Kalihi Valley Reconstructed Sewer (aka Kalihi Valley Relief Sewer)	05-0284	This included one pipe segment, SewerID 250497. That sewer segment has been completed as part of project 08-0329. Construction completed 4/1/2011.
SI-CS-36 Kalihi/Nuuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	08-0285	This included two sewer segments, SewerID 278874 and 280867. The sewer segments were completed as part of the IDIQ2 Project; see Appendix H. Construction completed 9/19/2008.
SI-CS-63A Sand Island Basin Misc. Sewer Rehabilitation (aka Sand Island Structural Rehabilitation-Phase 1)	05-0284	This included one pipe segment, SewerID 294754. That sewer segment has been completed as part of project 02-1301. Construction completed 12/31/2008.

Compliance Milestone: Complete Construction 12/31/2013 (Paragraph 18.c)

Table 46. Paragraph 18.c Requirements (Complete Construction December 31, 2013)

Requirement	DDC Serial Number	Status
HN-CS-10B Waimalu Sewer Rehabilitation/Reconstruction Phase II - 7D01C (aka Honouliuli Sewer Rehabilitation - 7D01C)	09-0149	Construction completed 9/9/2011.
HN-CS-13 Waimalu Sewer Rehabilitation/Reconstruction Phase I - 7D01C (aka Waimalu Sewer Replacement)	09-0149	Construction completed 9/9/2011.
HN-TP-01 Honouliuli WWTP Upgrade	03-0417	Construction completed 7/31/2010.
KK-PS-01 Enchanted Lakes Wastewater Pump Station Upgrade	02-1305	Construction completed 12/27/2013.
SI-CS-51A Sewer Manhole and Pipe Rehabilitation at Various Locations (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation - Phase 1)	02-1304	Construction completed 2/9/2012.
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation)	05-0653	A portion of this work was completed 10/17/1997. The 6' x 6' Box portion of this project was Construction completed on 12/31/2013 under DDC serial number 11-0136.
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation 6' x 6' Box)	05-0271	The 14-inch structural rehabilitation portion of this project was Construction completed on 6/27/2011 under DDC serial number 11-0429.
SI-CS-54 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-24 Structural Rehabilitation)	05-0271	The remaining 24-inch sewer along Ala Moana Blvd was Construction completed on 5/16/2011 under DDC serial number 11-0113.

Requirement	DDC Serial Number	Status
SI-CS-55 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-36 Structural Rehabilitation)	05-0271	The grouting portion of this project was Construction completed on 8/26/2014 under DDC serial number 11-0136. Abandonment of 36-inch sewer was completed on 6/9/2012, after service was transferred to other lines in accordance with EPA approval on 5/8/2012.
SI-CS-57 Ala Moana Blvd. Sewer Reconstruction (aka Ala Moana Blvd.-16 Structural Rehabilitation)	03-0412	Construction completed 4/4/2011.
SI-CS-59 Waikiki Sewer Rehabilitation/Reconstruction	04-1159	Construction completed 6/19/2013.
SI-PS-14 Kuliouou Sewer Rehabilitation and WWPS Modification (aka Kuliouou WWPS Modification)	08-0098	Construction completed 4/7/2010.
WH-TP-01 Wahiawa Wastewater Treatment Plant Influent Pump Station Upgrade and Equalization Facility (aka Modify IPS and New Storage at Wahiawa WWTP)	02-1306	Construction completed 1/2/2013.
WM-CS-02 Waimanalo Sewer Rehabilitation	06-0354	Construction completed 11/5/2013.

Compliance Milestone: Complete Construction 12/31/2014 (Paragraph 18.d)

Table 47. Paragraph 18.d Requirements (Complete Construction December 31, 2014)

Requirement	DDC Serial Number	Status
HN-TP-02 Mililani WWPTF Storage and Headworks Upgrade (aka Mililani WWPTF Upgrade)	00-0564	Construction in progress.

Requirement	DDC Serial Number	Status
SI-CS-09 Kahanu St., School St., and Umi St. Relief Sewers (aka School St. Relief Sewer)	04-1147	Construction completed 8/2/2011.
SI-CS-18 Kalanianaʻole Highway Sewer	04-1454	Construction completed 9/16/2011
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	04-1147	Construction Complete 8/2/2011.
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	10-0037	Construction completed 8/20/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	04-1147	Construction completed 8/2/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	08-0890	Construction completed 3/26/2011.
SI-CS-62 Kalanianaʻole Highway Sewer (aka Kalanianaʻole Hwy Structural Rehabilitation)	04-1454	Construction completed 9/16/2011.
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012.
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012.

Compliance Milestone: Complete Construction 12/31/2016 (Paragraph 18.e)

Table 48. Paragraph 18.e Requirements (Complete Construction December 31, 2016)

Requirement	DDC Serial Number	Status
HN-CS-04 Renton Road Sewer and Manhole Rehabilitation (portion: Eastern/Makakilo trunk)	pvt	Planning in progress by developer's consultant.
HN-CS-05B Leeward Area Sewer and Manhole Rehabilitation (aka Waipahu Manhole and Pipe Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-05C Leeward Area Sewer and Manhole Rehabilitation (aka Ewa Manhole Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-10A Waiau Area Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7D01A)	06-0664	This project has been broken into two construction projects. DDC serial number 06-0664 is in construction. DDC serial number 11-0256 is in design.
HN-CS-10C Foster Village Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7F05)	05-0275	Construction completed 7/22/2011.
KK-CS-04 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Oneawa St. Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.
KK-CS-06 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua Beach Park Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.

Requirement	DDC Serial Number	Status
KK-CS-09 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kaneohe Bay Drive Structural Rehabilitation)	08-0222	This work was completed under DDC serial number 05-0281. Construction completed 2/22/2011.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	05-0281	Construction completed 2/22/2011.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	08-0455	Construction in progress.
SI-CS-30 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Date St. Relief Sewer)	06-0092	Construction completed 4/11/2014.
SI-CS-43 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka North King St. Relief Sewer)	06-0636	Design in progress.
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	09-0464	Construction in progress.
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	06-0063	Construction completed 10/18/2011.

Requirement	DDC Serial Number	Status
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)	05-0284	Design in progress.
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)	05-0284	Design in progress.
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)	06-0636	Design in progress.
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)	06-0636	Design in progress.
SI-CS-58 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Moiliili-Kapahulu Structural Rehabilitation)	06-0092	Construction completed 4/11/2014.
SI-CS-60 Old Sewer Tunnel Rehabilitation (aka Old Tunnel Structural Rehabilitation)	08-0107	Design in progress.

Projects Requiring Further Study (Paragraph 18.f)

The 39 projects in Paragraph 18.f are being addressed through various planning contracts and facility plans. The projects that are not included in a DDC planning contract (identified as “NONE” in the DDC Serial Number column) are being addressed in on-going wastewater regional facility plans. These various contracts and facility plans will be submitted to EPA and DOH as they are completed. As provided in the CD, CCH’s evaluation of a project may result in a recommendation that the project be eliminated. This report is due to EPA and DOH by 12/17/2014.

Table 49. Paragraph 18.f Requirements

Requirement	DDC Serial Number	Status
HN-CS-07 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Waimalu Wastewater System Relief)	06-0667	Planning in progress.
HN-CS-08 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City Trunk Sewer Relief)	06-0667	Planning in progress.
HN-CS-09 Pacific Palisades Diversion Sewer Line (aka Pacific Palisades Relief Sewer)	09-0393	Planning in progress.
HN-CS-14 Waipahu Sewer Replacement/Relief Sewer (aka Waipahu Sewer Replacement)	03-0440	Planning in progress.
HN-PS-01 Waipio WWPS Upgrade	06-0669	Planning in progress.
HN-PS-04 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City WWPS Relief)	06-0667	Planning in progress.
KK-CS-01 Kalaheo Ave. Relief Sewer	08-0741	Planning in progress.

Requirement	DDC Serial Number	Status
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	03-0414	This portion of the requirement was performed under DDC serial number 03-0414. Construction completed 1/9/2009.
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	08-0095	Planning in progress.
KK-CS-15 Hele St. Sewer Relief/Rehabilitation (aka Hele St. Relief Sewer)	09-0532	Planning in progress.
KK-CS-20 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kaha St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-21 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kahuhipa St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-22 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Namoku St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-23 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Puohala Relief Sewer)	08-0095	Planning in progress.
KK-CS-25 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Makahio St. Relief Sewer)	08-0095	Planning in progress.
KK-PS-02 Waikalua WWPS Upgrade	08-0115	Planning in progress.
KK-PS-10 Kahanahou Pump Station Upgrade	08-0734	Planning in progress.
KK-PS-12 Waikapoki WWPS Upgrade	06-0102	Planning in progress.
SI-CS-01 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Airport Relief Sewer)	04-1139	Planning in progress.

Requirement	DDC Serial Number	Status
SI-CS-08 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd-Iwilei Relief Sewer), portion	06-0636	Planning in progress.
SI-CS-10 Chinatown Sewer Rehabilitation (aka College Walk-30 Replacement Sewer)	08-0083	Planning in progress.
SI-CS-15 Manoa Sewer Relief/Rehabilitation (aka Manoa Relief Sewer)	08-0102	Planning in progress.
SI-CS-17 Palolo Valley Sewer Rehabilitation (aka Palolo Relief Sewer)	08-0108	Planning in progress.
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0083	Planning in progress.
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0331	This portion of the work was completed under DDC serial number 08-0331. Construction completed 9/10/2009.
SI-CS-27 Palolo Valley Sewer Rehabilitation (aka Waiomao Stream Relief Sewer)	08-0108	Planning in progress.
SI-CS-28 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Auwaiolimu St. Relief Sewer)	05-0284	Planning in progress.
SI-CS-29 Kalihi/Nuuanu Area Sewer Rehabilitation (southern makai portion) (aka Nuuanu Relief Sewer)	05-0284	Planning in progress.
SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	05-0284	Planning in progress.
SI-CS-39 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Kalani St. Relief Sewer), portion	05-0284	Planning in progress.

Requirement	DDC Serial Number	Status
SI-CS-42 Dowsett Highlands Relief Sewer	10-0212	Planning in progress.
SI-CS-42 Dowsett Highlands Relief Sewer	10-0212	This work is duplicative of other work identified under DDC Serial Number 10-0212.
SI-PS-01 Kamehameha Hwy WWPS Upgrade	09-0531	Planning in progress.
SI-PS-04 Awa Street WWPS Upgrade	10-0208	Planning in progress.
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	08-0074	Planning in progress.
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	06-0065	This work is the Ala Moana Force Main No. 3, which is already addressed under CD Paragraph 15. Construction in progress.
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 2)	04-1139	Planning in progress.
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 2)	04-1139	Planning in progress.
WH-PS-02 Uwalu WWPS Upgrade	08-0113	Planning in progress.

Wet Weather I/I Assessment Update (Paragraph 18.g)

CCH is continuing its on-going development of a Wet Weather I/I Assessment Update. CCH has met all of the schedule requirements to date for the Wet Weather I/I Assessment Update and is on schedule to meet the future schedule requirements.

Table 50. Wet Weather I/I Assessment Update Schedule Requirements

Requirement	Due Date	Status
EPA/DOH Meeting to Discuss Data from Wet Weather Season 1	9/30/2010	Completed. This meeting was held on 9/14/2010 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Data from Wet Weather Season 2	9/30/2011	By mutual agreement, this meeting was held on 10/04/2011 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Proposed Hydraulic Capacity Projects	4/18/2012	By mutual agreement, this meeting was held on 4/18/2012 with CCH, EPA and DOH.
Complete Collection of Precipitation and Flow Monitoring Data	8/1/2011	Completed 6/30/2011.
Peak Flow Cost Effectiveness Analysis Report	12/31/2012	Peak Flow Cost Effectiveness Analysis Report finalized on 12/26/2012.

Table 51. Wet Weather I/I Assessment Update Submittal Requirements

Requirement	Due Date	Status
Preliminary Deferred Projects Report	12/31/2012	CCH submitted the Preliminary Deferred Projects report on 12/28/2012
Final Deferred Projects Report	11/30/2013	Report submitted to EPA and DOH on 11/27/2013. Received EPA and DOH comments on 4/2/2014. Revised Report submitted to EPA and DOH on 6/9/2014.
Wet Weather I/I Assessment Update	12/31/2013	Report submitted to EPA and DOH on 12/30/2013.
Update of Capital Improvement Plan	Compliance milestone: 12 months after approval of Final Deferred Projects Report	

I. Gravity Main Condition Assessment (Paragraph 19)

CCH is conducting a program of inspection and condition assessment for selected gravity mains.

Inspections are being performed using closed-circuit television (CCTV) and the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standard. During CCTV inspection, the camera operator codes each defect using the PACP system and generates a database with the severity of each defect. If there are defects that create an imminent risk of a spill, that information is flagged for immediate follow-up. After the initial assessment, the videos and databases are forwarded to CCH engineering staff for further review and development of rehabilitation and replacement projects.

During the period from 1/01/2009 through 6/30/2014 CCH performed closed-circuit television (CCTV) inspection and condition assessment on approximately 689 miles of gravity sewer. The progress is charted in Figure 1.

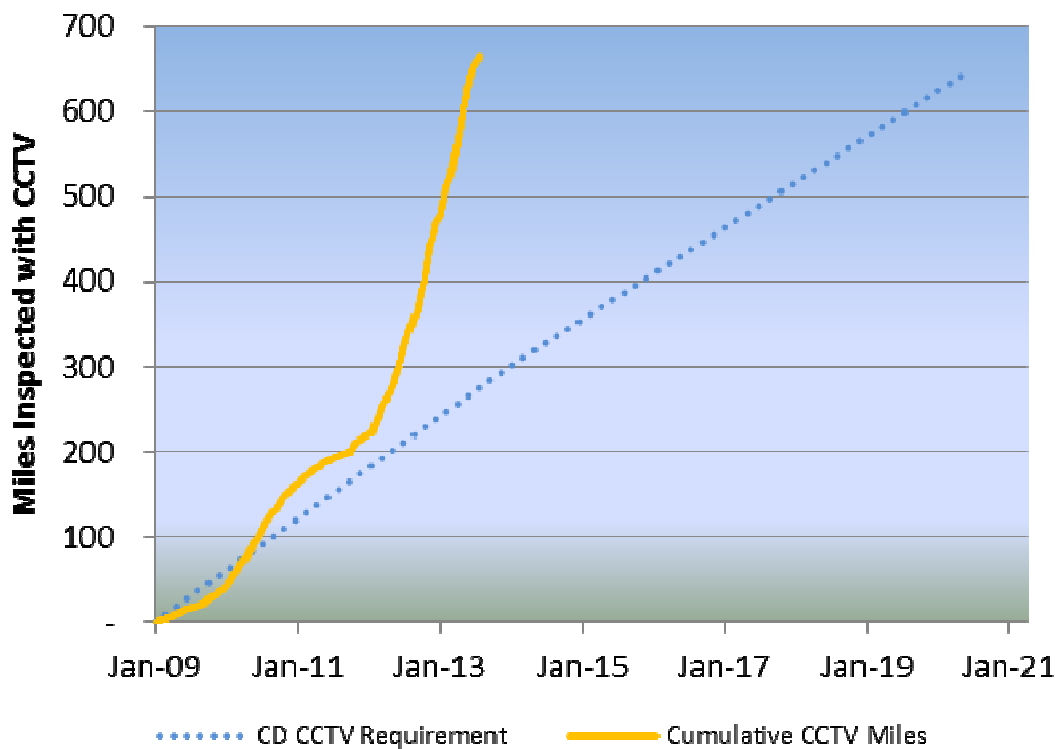


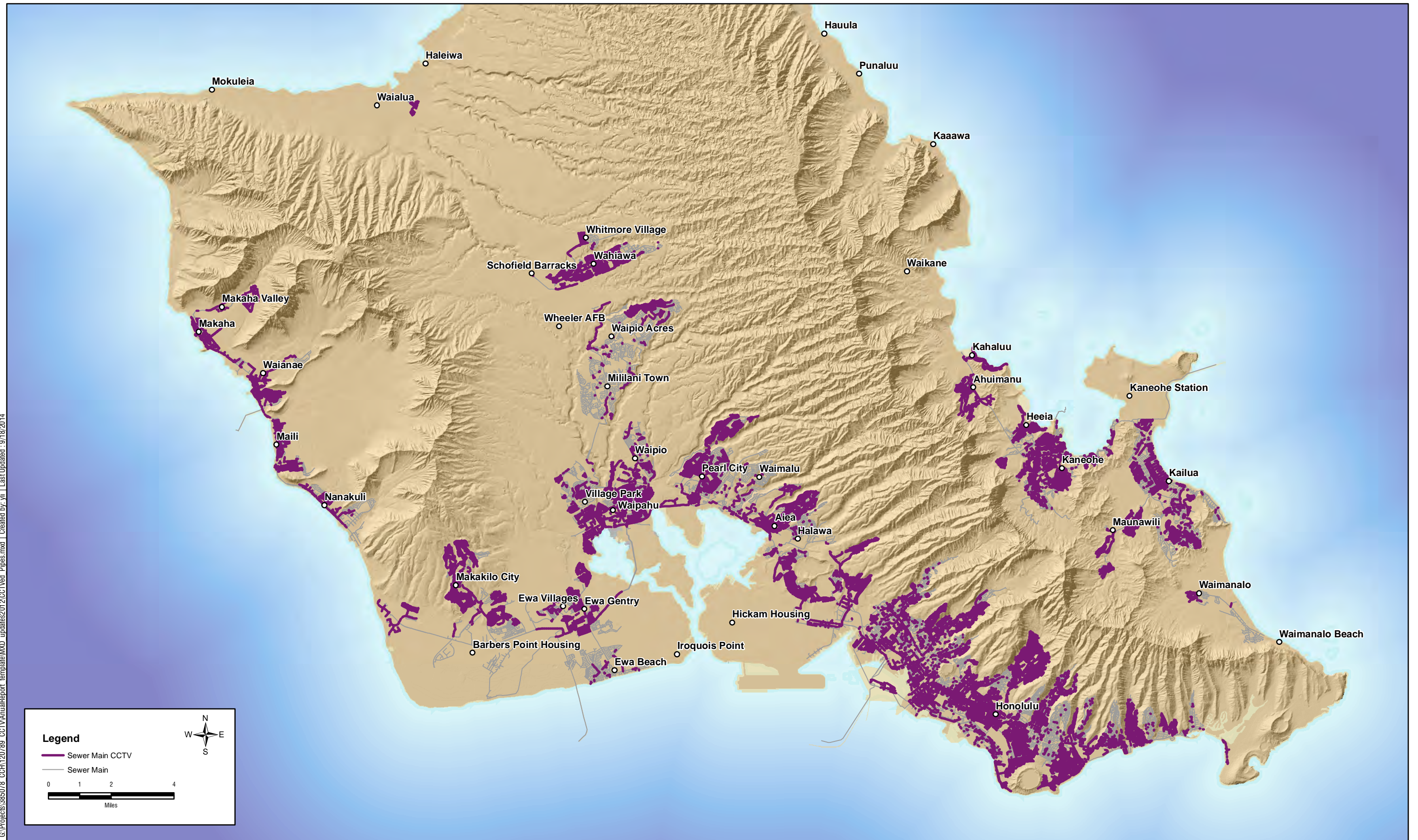
Figure 1. CCTV Inspection Miles through June 30, 2014

Table 52. Gravity Main Condition Assessment Requirements

Requirement	Due Date	Status
Gravity Main Condition Assessment - First 300 Miles	12/17/2013	300 miles of inspection completed through Year Three.
Gravity Main Condition Assessment - Second 350 Miles	6/30/2020	389 miles of inspection completed through Year Four.

Figure 2 shows the pipe segments that have been inspected using CCTV since January 1, 2009.

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Gravity Sewer Condition Assessment (January 1, 2009 through June 30, 2014)

FIGURE 2



J. Gravity Main Rehabilitation and Replacement Program (Paragraph 20)

CCH has completed, with the exception of a few segments that have been documented and communicated to EPA/DOH, the gravity main rehabilitation and replacement projects identified in CD Appendix H. CCH has also completed work on other projects that allow additional miles of rehabilitation and replacement to be banked towards meeting the requirements of Years Four through Ten.

Rehabilitation and Replacement Plan (Paragraph 20.b)

Table 53 Rehabilitation and Replacement Plan

Requirement	Due Date	Status
Rehabilitation and Replacement Plan	12/13/2013	CCH submitted Plan to EPA/DOH on 12/13/2013. On 4/2/2014 EPA returned comments for CCH to address and resubmit Plan by 6/16/2014. On 5/29/2014 CCH submitted the revised Plan to EPA/DOH. On 8/27/2014 EPA approved the Revised Gravity Sewer Main Rehabilitation and Replacement Plan.

Rehabilitation and Replacement Program for Years One through Three (Paragraph 20.c)

CD Appendix H specifies a set of rehabilitation and replacement projects that were completed by the end of Year Three. These projects include portions of new sewer (newly constructed gravity main) and rehab sewer (gravity main that has been rehabilitated through a point repair or through the installation of an internal liner). CD Appendix H includes the estimated number of miles of new and rehabilitated sewer associated with each project. In some cases the actual mileage varied because of changes encountered during the construction process. The actual miles of new and rehabilitated sewer are reported in the Table below.

Table 54. Appendix H Requirements

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Alii Shores Structural Rehabilitation	03-0414	0	0.4335	0	0.4134	Construction completed 1/9/2009.
Amelia Street Relief Sewer	05-0980	0.2697	0	0.2002	0	Construction completed 12/19/2010. * See Note 3 below.
Fort Weaver Road Manhole and Pipe Rehabilitation	03-0415	0.1498	0.8379	0.1498	0.9534	Construction completed 12/19/2007.
Halona Street Relief Sewer, Kalihi	02-1300	0.4545	0.3902	0.4438	0.5057	Construction completed 4/21/2009.

CITY AND COUNTY OF HONOLULU - WASTEWATER CONSENT DECREE - YEAR FOUR REPORT

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Houghtailing Street Area Sewer (SI-CS-06, SCIP 25, SMPR 25)	04-1144	0.5515	3.7519			Construction completed 8/16/2012.
Ilimalia Loop Mokapu Blvd Reconstructed Sewer	00-0534	0	0.5714	0	0.5606	Construction completed 8/7/2008.
Kailua/Kaneohe Sewer Rehabilitation - Ph 1 (KK-CS-09 portion, KK-CS-16 portion)	03-0418	0.0816	2.189	0.0218	2.1716	Construction completed 10/22/2010. * See Note 2 below.
Kailuana Place Sewer Rehabilitation (SMPR 64)	02-1659	0.0227	0.9205	0	0.9426	Construction completed 3/27/2008.
Kalaheo Ave / Mokapu Road / Aikahi Loop Sewer Rehab (KK-ZZ-02 Portion)	06-0083	0	0.6439	0	0.64	Construction completed 2/22/2010.
Kalakaua Ave Sewer Rehabilitation - Kalakaua Ave portion (SMPR 27 portion)	02-1656	0.2775	0			Construction completed 4/19/2012.
Kalihi Valley Reconstructed Sewer (SI-CS-05 portion, SCIP 14 portion)	00-0550	0.268	0	0.2587	0	Construction completed 7/7/2010.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1A [Area 2A - Middle Kalihi]	06-0086	1.5795	0	1.55	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1B [Area 2B - Middle Kalihi]	08-0328	0.7917	0	0.74	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1C [Area 3 - Upper Kalihi]	08-0329	1.072	0	1.03	0	Construction completed 4/1/2011.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1D [Area 4, 7, & 8 - Lanakila, Punchbowl South and Pacific Hts]	08-0330	0.2481	0	0.25	0	Construction completed 11/17/2010.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1E [Area 5A - Lower Nuuanu]	08-0331	0.3144	0	0.33	0	Construction completed 9/10/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1F [Area 5B - Lower Nuuanu]	08-0332	0.3314	0	0.343	0	Construction completed 1/30/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1G [Area 5C - Lower Nuuanu]	08-0333	0.5966	0	0.63	0	Construction completed 11/20/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1H [Area 6 - Punchbowl North]	08-0334	0.392	0	0.4913	0	Construction completed 1/30/2009.
Kalihi/Nuuanu Area Sewer Rehabilitation Phase 1I [Area 9 - Upper Nuuanu]	08-0335	0.2936	0	0.3487	0	Construction completed 2/13/2009.
Kaneohe Bay Drive Trunk Sewer Reconstruction	02-1286	0.3466	0.2633	0.3223	0.2059	Construction completed 8/26/2010.

CITY AND COUNTY OF HONOLULU - WASTEWATER CONSENT DECREE - YEAR FOUR REPORT

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Kapiolani Area Revised Sewer System (SCIP 16 portion, SCIP 26 portion, SMPR 12, SMPR 16)	00-0559	0.5244	0.3485	0.52	0.35	Construction completed 10/29/2009.
Kuliouou Sewer Rehabilitation and WWPS Modifications - Sewer Rehabilitation (SMPR 36 portion)	00-0561	0.2212	2.9892	0.12	2.98	Construction completed 4/22/2009.
Peterson Lane (SMPR 92, SMPR 73 p) and Pua Lane (SMPR 93) Sewer Rehabilitation	05-0457	0.7235	0.107	0.72	0.11	Construction completed 9/15/2009.
Renton Road Sewer and Manhole Rehabilitation	03-0427	0	2.3616	0	2.36	Construction completed 8/26/2009.
Saint Louis Heights Sewer Rehabilitation (SCIP 04, SMPR 39, SI-CS-31)	02-1284	0.092	8.8733			Construction completed 3/8/2013.
Sand Island Basin Miscellaneous Sewer Rehabilitation, Phase 1 (SI-CS-63A, SI-CS-63B)	02-1301	0	0.3402	0	0.34	Construction completed 12/30/2008. * See Note 1 below.
Sewer Manhole & Pipe Rehabilitation At Various Locations - Ph I	04-1994	0	0.0407	0	0.05	Construction completed 4/29/2009. * See Note 3 below.
Waimalu Sewer Rehabilitation Ph 1, 7D01C	02-1299	1.1761	0			Construction completed 6/30/2011.
Waimanalo Sewer Rehabilitation	03-0439	0.339	0	0.3411	0	Construction completed 12/16/2009.
Waipahu Street/Plantation Village Sewer Reconstruction (SCIP 24, SMPR 26)	02-1287	0.3985	0	0.44	0	Construction completed 4/30/2011.
Wanaao Road/Keolu Drive Reconstructed Sewer (KK-CS-07, KK-ZZ-03)	02-1557	1.6746	0	1.571	0	Construction completed 7/26/2010.
Wilhelmina Rise Sewer Rehabilitation (SCIP 01)	00-0607	0.0644	8.161			Construction completed 1/11/2012.
Ala Moana and Kapiolani Trunk Sewer Replace/Rehabilitation, Phase 1B, 1C, 1D - Kapiolani Blvd Water and Sewer System Improvements	00-0516	0.2614	0.9848	0.48	0.98	Construction completed 10/29/2009.
Beretania Street 1617 (SUB 7736, McCully) FY08-12-20	08-0459	0	0.1138	0	0.1114	Construction completed 11/12/2008.
Foster Village (Aliamanu) FY08-02-24	09-0135	0	2.2104	0	2.1795	Construction completed 9/13/2010.
Halekoa Drive 1509 (SUB 5254, Waialae) FY08-09-06	08-0402	0	0.1141	0	0.1142	Construction completed 1/24/2008.
Houghtailing, Area 1 (Liliha) FY07-10-01	08-0397	0	0.3379	0	0.3138	Construction completed 9/18/2008.

CITY AND COUNTY OF HONOLULU - WASTEWATER CONSENT DECREE - YEAR FOUR REPORT

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Houghtailing, Area 2 (Liliha) FY07-10-01	09-0039	0	0.6489			Construction completed 5/23/2008.
Houghtailing, Area 3 (Liliha) FY07-10-01	08-0398	0	0.9715			Construction completed 2/21/2011. * See Note 1 below.
Kahala / Piliialoha Place 1687 (Moanalua) FY09-11-17	08-0982	0	0.1269	0	0.1256	Construction completed 4/7/2009.
Kahala Avenue 4783 (SUB 5281, 5285, Waialae) FY07-05-29	05-0278	0	0.2798	0	0.2737	Construction completed 7/19/2010.
Kalihi Valley, Area 1 (Kalihi) FY 07-09-24	08-0396	0	1.2896			Construction completed 5/18/2012. * See Note 3 below.
Kalihi Valley, Area 2 (Kalihi) FY 07-09-24	09-0040	0	0.5632			Construction completed 11/25/2008.
Kalihi Valley, Area 3 (Kalihi) FY 07-09-24	09-0041	0	1.0969	0	1.0754	Construction completed 7/21/2010.
Kalihi Valley, Area 4 (Kalihi) FY 07-09-24	09-0042	0	0.7713			Construction completed 1/19/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 1 FY07-07-20	08-0285	0	0.0571	0	0.0571	Construction completed 2/28/2008.
Kalihi-Nuuuanu, Area 2.1 FY07-07-20	08-0297	0	0.2965			Construction completed 3/15/2010.
Kalihi-Nuuuanu, Area 2.3 FY07-07-20	08-0297	0	0.3138			Construction completed 8/31/2010.
Kalihi-Nuuuanu, Area 2.4 FY07-07-20	08-0297	0	0.2449			Construction completed 4/7/2010.
Kalihi-Nuuuanu, Area 2.5 FY07-07-20	08-0285	0	0.0761	0	0.0761	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.1 FY07-07-27	08-0285	0	0.2185	0	0.2185	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.3 FY07-07-27	08-0297	0	0.433			Construction completed 6/10/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.4 FY07-07-27	08-0297	0	0.2373			Construction completed 8/26/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.5 FY07-07-27	08-0285	0	0.0462	0	0.0462	Construction completed 9/11/2008.
Kalihi-Nuuuanu, Area 4.1 FY07-07-31	08-0285	0	0.2784	0	0.2784	Construction completed 6/4/2010.
Kalihi-Nuuuanu, Area 4.2 FY07-07-31	08-0285	0	0.3083			Construction completed 9/12/2008.
Kalihi-Nuuuanu, Area 4.3 FY07-07-31	08-0285	0	0.2348	0	0.2348	Construction completed 9/12/2008
Kalihi-Nuuuanu, Area 5.3 FY07-08-01	08-0297	0	0.2213			Construction completed 1/19/2010. * See Note 3 below.

CITY AND COUNTY OF HONOLULU - WASTEWATER CONSENT DECREE - YEAR FOUR REPORT

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Kalihi-Nuuanu, Area 6.2 FY07-08-01	08-0297	0	0.1786			Construction completed 3/23/2010. * See Note 3 below.
Kalihi-Nuuanu, Area 6.4 FY07-08-01	08-0297	0	0.1443			Construction completed 11/30/2009.
Kalihi-Nuuanu, Area 7.2 FY07-08-06	08-0297	0	0.2856			Construction completed 8/4/2009. * See Note 3 below.
Kaneohe Bay Drive 44-505 (SUB 4267, 4268, 4270, 4271, Kaneohe) FY07-05-17	08-0222	0	0.2978	0	0.2924	Construction completed 6/27/2008.
Kaneohe Bay Drive Trunk Sewer, Sewerline B (Kaneohe) FY07-09-13	08-0394	0	0.3039	0	0.2928	Construction completed 2/16/2009.
Kilani Avenue 211, Illima Street 91 (SUB W186, Wahiawa) FY08-01-02	08-0460	0	0.0909	0	0.0907	Construction completed 8/20/2008.
Komo Mai Drive 1860 (SUB 2094, 2095, Pearl City) FY08-06-13	08-0462	0	0.2708	0	0.2555	Construction completed 1/16/2009.
Leighton Street 815 (SUB 5114, 5116, Kuliouou) FY08-06-18	08-0210	0	0.2561	0	0.2528	Construction completed 8/14/2009.
Makalii Place 350, Kailua Road (SUB 4612, 4661, Kailua) FY07-05-17	08-0223	0	0.2129	0	0.2021	Construction completed 6/27/2008.
Mikiola Drive / Alakai Street / Likeke Place (Kaneohe) FY-07-09-28	08-0395	0	0.4053	0	0.3973	Construction completed 5/12/2010.
Mulehu Street 94-436 (SUB 0446, Mililani) FY09-09-30	08-0981	0	0.0396	0	0.0398	Construction completed 10/7/2009.
Nanamoana Street 44-121 (SUB 3994, Kaneohe) FY07-06-06	08-0260	0	0.0212	0	0.0373	Construction completed 12/13/2007.
Waiālae Iki, Area 4 (Kuliouou) FY07-11-15	08-0408	0	0.5375	0	0.5006	Construction completed 3/5/2009.
Waiālae Iki, Area 5 (Kuliouou) FY07-11-15	09-0043	0	0.2962	0	0.2953	Construction completed 2/17/2010.
Waiālae Iki, Area 6 (Kuliouou) FY07-11-15	09-0044	0	0.2786	0	0.2544	Construction completed 3/24/2010.
Waimalu Sewer Rehabilitation (Aiea) FY09-06-29	09-0653	0	0.4561	0	0.4509	Construction completed 10/1/2009.
Waimanalo Sewers (SUB HAWN, PRIV, 2017, 2013, Waimanalo) FY07-10-05	08-0403	0	0.3705	0	0.3604	Construction completed 12/6/2008.
Waipahu Depot Street, Farrington Highway (SUB 0887, Waipahu) FY09-09-30	08-0980	0	0.0145	0	0.0138	Construction completed 3/11/2009.

¹ This project was determined to be in good condition and is complete for purposes of Paragraph 20.c.

² This project was determined to be completed at a reconfigured length and is complete for purposes of Paragraph 20.c.

³ A portion of this project is included in the 0.35 miles of pipe that will be re-evaluated by CCH as part of the Kalihi-Nuuanu project by December 31, 2016.

Implementation of RR Plan for Gravity Mains (Paragraph 20.d)

CCH has implemented the RR Plan as approved and has completed the following mileage for each Year.

Table 55 Rehabilitation and Replacement Miles – Years Four through Ten

Consent Decree Year	RR Miles Required	RR Miles Completed
Year Four	11.5	11.5
Year Five	11.5	
Year Six	11.5	
Year Seven	11.5	
Year Eight	11.5	
Year Nine	11.5	
Year Ten	12	

Banking of Excess Miles (Paragraph 20.e)

CCH maintains a database of sewer segments addressed through rehabilitation and replacement projects. A report from this database is shown in Attachment A. For projects that are not identified in CD Appendix H, CCH is allowed under CD Paragraph 20.e to bank the additional miles of gravity main sewer addressed through rehabilitation and replacement projects. Banked miles can then be used towards meeting the requirements of Years Four through Ten. Through the end of Year Four, there were 38 miles that qualified for this purpose of which 11.5 miles were applied towards the Year Four annual mileage requirement, leaving 26.5 “banked” miles.

Table 56 Banked RR Miles

Date	Banked Miles	Applied Miles	Year End Balance
6/30/2013	22	0	22
6/30/2014	16	11.5	26.5

Figure 3 shows the specific sewer segments identified in Attachment A.



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Pipe Segments Proposed for Addition to Rehabilitation and Replacement Bank

K. Gravity Main Cleaning and Maintenance Program (Paragraph 22)

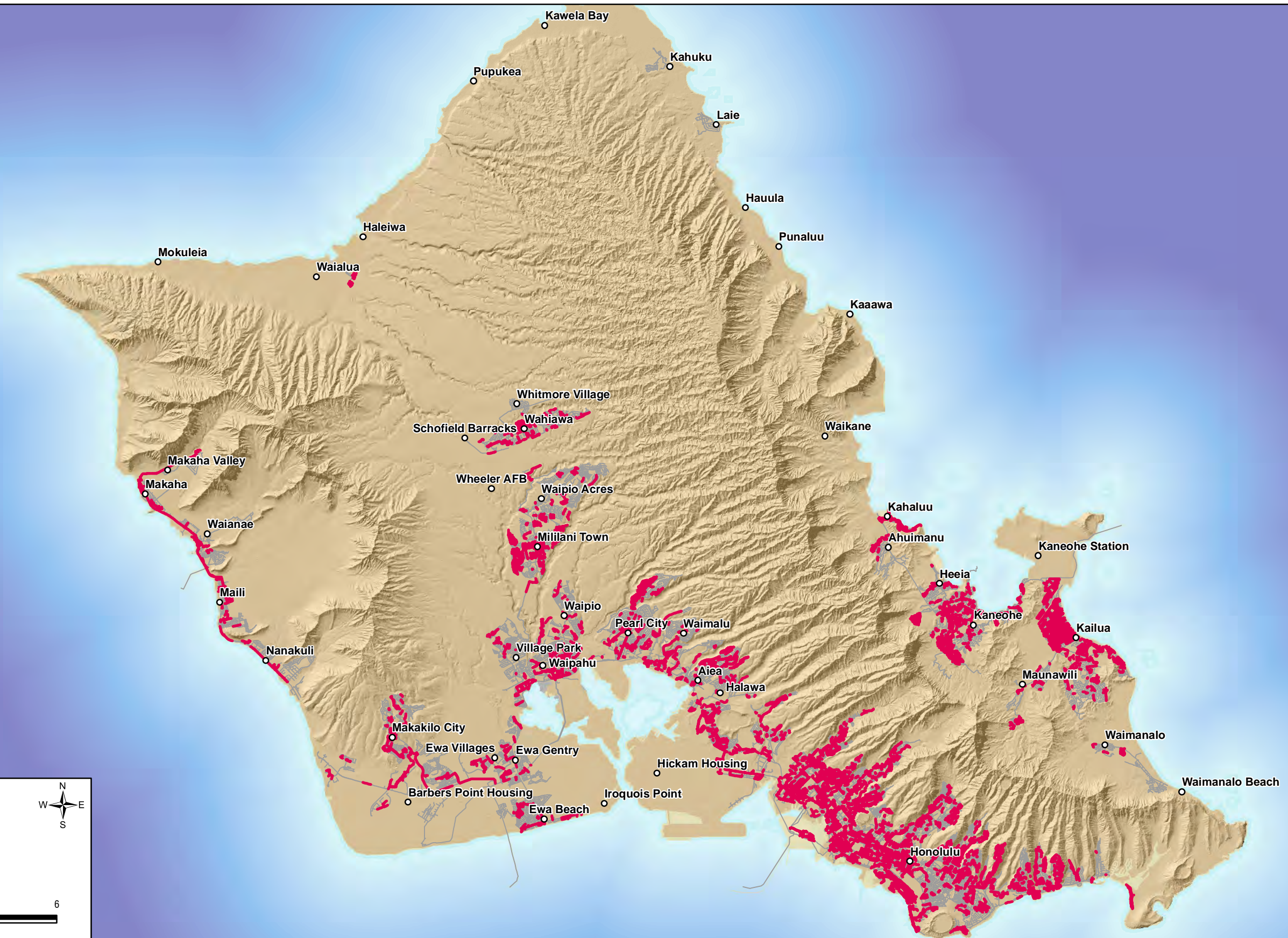
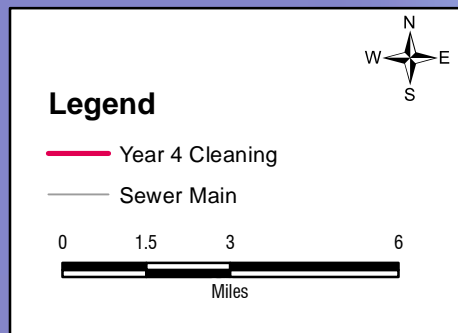
Gravity Sewer Cleaning (Paragraph 22.a)

Table 57. Gravity Sewer Cleaning

Requirement	Annual Performance Requirement	Status
Gravity Main Cleaning Program	500 miles of cleaning; 300 miles of unique cleaning	Completed for Year Four: 585 miles of cleaning (flushing or rodding) 433 miles of unique cleaning

Figure 4 shows the pipes included in the gravity sewer cleaning program for Year Four.

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Gravity Sewer Cleaning (July 1, 2013 through June 30, 2014)

FIGURE 4



Chemical Root Control (Paragraph 22.b)

The root control process included mechanical root cleaning followed by chemical root treatment. CCH will monitor the effectiveness of the root treatment to help determine the future of the root control program.

Table 58. Chemical Root Control Requirements

Requirement	Due Date	Status
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles per Year One	6/30/2011	Complete for Year One: 15.4 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles per Year Two	6/30/2012	Complete for Year Two: 18.43 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control annually	6/30/2013	Complete for Year Three: 10.2 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Meeting to Discuss Future Root Control	5/31/2013	Root Control Analysis and Future Cleaning & Maintenance plans were presented to EPA and DOH on 5/22/2013.
Gravity Main Cleaning and Maintenance Program - Root Control annually	6/30/2014	Complete for Year Four: 4.63 miles of root treatment

L. Commercial Fats, Oils, and Grease ("FOG") Control Program (Paragraph 23)

CCH continues its FOG Control Program to conduct inspections, enforce existing regulations, and maintain databases of enforcement activity as required by the CD.

General Requirements (Paragraph 23.a)

No Discharge without Permit (Paragraph 23.a.i)

CCH continues to prohibit Food Service Establishments (FSE) from discharging into its wastewater system without a permit issued under the CCH Ordinances and Rules Relating to Grease Interceptor Program Compliance.

Annual Inspections (Paragraph 23.a.ii)

CCH continues to perform:

- a) Annual inspections of Grease Removal Devices (GRDs), previously in compliance with Grease Interceptor Rules (including sizing criteria); and
- b) Semi-annual inspection of all other GRDs (those not in compliance with the Grease Interceptor rules, including sizing criteria).

Physical inspections include coring the GRD to document compliance to the FOG Control Program and Grease Interceptor Rules, and reviewing maintenance logs and compliance with bar coding requirements.

During Year Four CCH performed 4,052 inspections of GRDs.

Special Investigations (Paragraph 23.a.iii)

CCH continues to perform special investigations of potential FOG sources that may have caused or contributed to a FOG-related SSO or triggered an Environmental Incident Report. CCH issues formal Enforcement Orders within 60 days following completion of the special investigation for those FSEs identified to be the source of the FOG problem. Enforcement Orders require the establishment owner of the FOG problem to:

- a) Come into full compliance with CCH's Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Four, CCH performed 4 special investigations. These investigations led to enforcement actions or public education in residential areas, as appropriate.

Enforcement (Paragraph 23.a.iv)

CCH issues appropriate enforcement action(s) to FSEs not in compliance with the Grease Interceptor Rules in accordance with the Enforcement Response Plan. The enforcement action may require a FSE to:

- a) Replace existing GRD with a CCH-approved GRD per Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Four, CCH issued approximately 452 enforcement actions related to FOG. These actions included Wastewater Discharge Orders, Warning Letters, and Notice of Violations (NOVs). In Year Four, CCH issued 12 NOVs and is continuing to escalate enforcement against those permit holders who have not been brought into compliance.

DOH New Business Licenses (Paragraph 23.a.vi)

Based on information from the DOH license lists, building permits, and other sources, CCH issued approximately 164 new permits during Year Four to control FOG discharge into the collection system.

Program Manual (Paragraph 23.b)

CCH provided its Commercial FOG Control Program Manual to EPA and DOH on June 15, 2011 in accordance with the CD. The Manual describes all aspects of the FOG Control Program as set forth in the CD.

M. Pump Station Projects (Paragraph 24)

Beachwalk WWPS Condition Assessment (Paragraph 24.a)

CCH is proceeding with improvements at the Beachwalk WWPS that were identified as follow-up items from the previously completed condition assessment report dated January 14, 2011.

Table 59. Beachwalk WWPS Condition Assessment

Requirement	DDC Serial Number	Compliance Milestone	Status
Beachwalk WWPS Condition Assessment Follow-Up - Repair Wet Well	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Construction NTP issued 10/11/2010. Construction completed 12/26/2012.

Requirement	DDC Serial Number	Compliance Milestone	Status
Beachwalk WWPS Condition Assessment Follow-Up - Replace Variable Speed Controls	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Repair Roof	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Replace Level Control	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.

Beachwalk Pump Station Upgrade (Paragraph 24.b)

CCH submitted a letter to EPA/DOH dated 8/21/2013 confirming that CCH satisfied this requirement by completing construction of improvements to the Beachwalk Wastewater Pump Station and force main system to increase the station's pumping capacity.

Fort DeRussy Pump Station Upgrade (Paragraph 24.c)

CCH is evaluating the future need for the Fort DeRussy Pump Station.

Waimalu Pump Station Controller Upgrade (Paragraph 24.d)

CCH completed replacement of the controllers at the Waimalu Pump Station. The work was completed in 6/2010, before the CD completion deadline of 11/30/2010.

Wet Weather Storage (Paragraph 24.e)

Equipment and procedures are in place to use existing storage at the Kaneohe PTF and the Ahuimanu PTF during wet weather events. The available storage volume is approximately 1.4 million gallons at the Kaneohe PTF and 600,000 gallons at the Ahuimanu PTF. As required by the CD, this storage volume is being used to reduce capacity-related overflows during wet weather events. CCH has calculated and documented the available storage volume in the existing structures and prepared flow schematics for each facility. During Year Four the storage at the Kaneohe PTF was not used during the rainfall events and the storage at the Ahuimanu PTF was not used during the rainfall events.

CCH has taken steps to decrease response time during wet weather events/spills and maximize the use of storage at the Kaneohe PTF and the Ahuimanu PTF, including:

For Kaneohe PTF:

- a. Replaced Unit 7 portable pump to increase pumping capacity to the storage tanks
- b. Installed automatic start switches for Unit 7 and Unit 8 flow diversion equipment
- c. Installed an automatic switch for Unit 8 portable pump
- d. Set the float height in the wet well of the old Kawa Pump Station
- e. Set the on/off logic for the portable pumps

For Ahuimanu PTF:

- a. Replaced pumps at the old final clarifier storage tank, to pump from the Old Final Clarifier storage tank to the old digester storage tank automatically. Previously, pumping from one tank to the other was done manually.

Pump Station Overflow Structures (Paragraph 24.f)

CCH announced an update of its design standards to suspend sections related to overflow structures in a letter dated 3/11/2009, to all design consultants in CCH's consultant database and posted the letter on its website. The letter suspended the sections of the design standards that referred to designed overflow structures.

Table 60. Pump Station Overflow Structure Requirements

Requirement	Due Date	Status
WWPS Overflow Structures Design Standards Update (i)	12/17/2010	Completed. Letter issued 3/11/2009.
WWPS Overflow Structures Closure Report (ii)	12/17/2011	CCH submitted the WWPS Overflow Structures Closure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
WWPS Overflow Structures Closure Project (iii)	2/13/2013	All work was completed prior to 2/13/2013.

Pump Station Operation and Maintenance Manuals (Paragraph 24.g)

CCH reviewed and updated, as necessary, the pump station O&M manuals by December 17, 2012.

Pump Station Operations Training (Paragraph 24.h)

Table 61. Pump Station Operations Training

Requirement	Due Date	Status
WWPS Standard Training Procedures Including SCPs	12/17/2011	Training procedures and materials were completed and are available for use as needed.
WWPS Training Certification for Maintenance Staff	12/17/2012	Pump Station training was completed 11/1/2011. Force Main SCP training was completed on 6/15/2012.

N. Sewer Laterals (Paragraph 25)

Inventory of Lower Laterals (Paragraph 25.a)

CCH maintains a database of lower laterals in its Geographic Information System (GIS). The CCH GIS database contains a current and complete inventory of lower laterals and is updated when new lateral information becomes available.

Problem Lower Laterals (Paragraph 25.b)

CCH keeps a list of lower laterals with known issues that require maintenance in the CSM computerized maintenance management system database. CSM maintains a database of all reported problem lower laterals, and the appropriate corrective action (repair, replacement or maintenance) to address the lateral issue is assigned. Once identified, the corrective action for such lateral is completed within two years. Attachment B includes a summary of the problem laterals addressed in Year Four.

Reporting of Lower Lateral Issues (Paragraph 25.c)

CSM staff report lower lateral issues observed during fieldwork and complete the appropriate corrective action within 60 days when a lower lateral contributes to an SSO. All CSM staff and contractors have been reminded to report any lateral issues observed during fieldwork.

Construction drawing notes also remind CCH contractors to report lateral problems encountered in the field to the sewer trouble call number (808) 768-7272.

Corrective Action within 60 Days (Paragraph 25.d)

CSM conducts corrective action (repair, replacement, or maintenance) within 60 days if a lower lateral causes or contributes to an SSO. Attachment B summarizes the laterals addressed in Year Four.

Clean-out Cap Replacement Program (Paragraph 25.e)

The Cleanout Cap Replacement Program is currently in place and is continued as part of the smoke testing procedures. CSM records the number of clean-out caps it replaces, and maintains the record for at least five years.

Building Inspection Materials and Follow-up (Paragraph 25.f)

CCH has developed materials for building inspectors with the DPP to assist in identifying illegal connections to the sanitary sewer system. These materials were disseminated before March 17, 2011 (90 days after the CD effective date).

When an inspection identifies an illegal connection, the DPP inspector informs the Regulatory Control Branch (RC) of ENV. CCH sends a Notice (return receipt requested) to the property owner of record indicating that corrective action, including certification of repair, must be taken within six months. RC maintains the records of this correspondence and repair certifications for at least five years.

Smoke Testing and Follow-up (Paragraph 25.g)

As an annual performance requirement, CCH is to perform smoke testing on at least 19 miles of gravity sewers (mains and lower laterals) per year. During Year Four, CCH performed smoke testing using in-house crews. The testing covered 16.97 miles of gravity mains and 7.17 miles of lower laterals, for a total of 24.14 miles. CCH recorded the sewer assets and dates of testing in its computerized maintenance management system and will retain the information for at least five years.

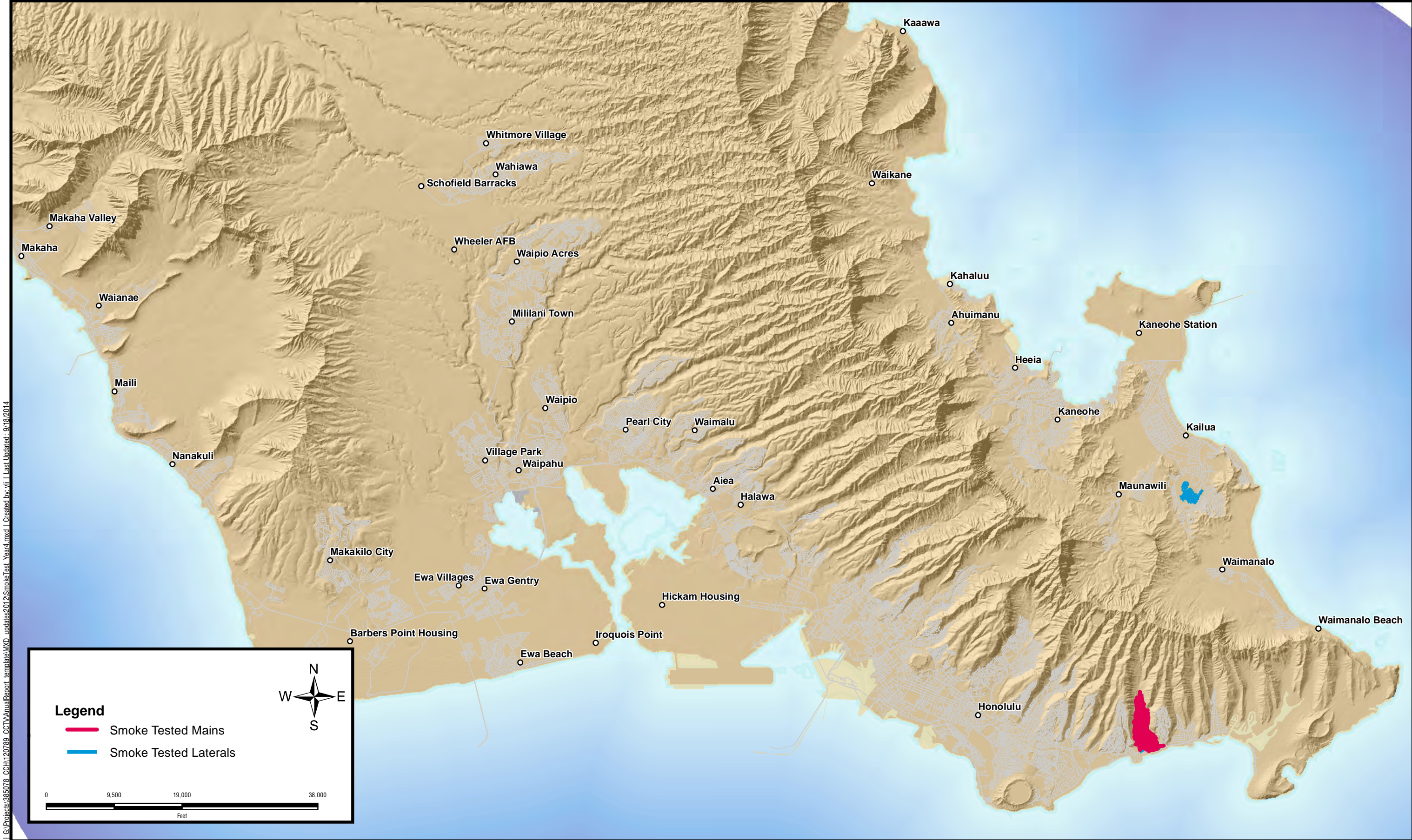
When smoke testing indicates an improper connection, CSM forwards the case to RC which issues a notice to the responsible party requiring them to:

1. Take corrective action to eliminate the improper connection within 6 months after receipt of notification, and
2. Provide certification of completion of the required corrective action.

RC maintains all records to this effect in RC database for at least five years.

During Year Four CCH identified 91 improper connections through the smoke testing program. Responsible parties are in the process of being notified to conduct corrective actions.

Figure 5 shows areas of smoke testing performed in Year Four.



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Gravity Sewer Smoke Testing (July 1, 2013 through June 30, 2014)

FIGURE 5

City and County of Honolulu | Wastewater Consent Decree | Year Four Annual Report

O. Staffing Commitments (Paragraph 26)

CCH implemented the approved staffing plan dated 2/2011. As of 12/31/2013, CSM met the requirements of the staffing plan.

Table 62. Staffing Commitments

Requirement	Due Date	Status
Collection System Staffing: Revised Staffing Plan Report	2/15/2011	EPA and DOH approval received 7/5/2011.
Collection System Staffing: Maintain 90% of Required Staffing Level	1/1/2014	For calendar year 2013, CCH maintained or exceeded the required staffing level of 90% Collection System Staffing with 25 non-field positions (including 5 full-time equivalent provided through overtime) and 139 field positions (including 18 full-time equivalents provided through overtime).

P. Equipment Commitments (Paragraph 27)

CCH had the required equipment under Appendix J by 6/17/2014, in accordance with CD Paragraph 27.b. CCH continues to maintain the equipment in good working order and has access to contractor vehicles as needed.

Table 63. Equipment Commitments

Requirement	Required Number	Status
Vactors	10	CSM currently has 14 vactors
Cesspool Trucks	5	CSM currently has 7 cesspool trucks
Rodders	8	CSM currently has 15 junior rodders and one rodding machine
CCTV Vans	4	CSM currently has 4 CCTV vans
Tankers (within WTD)	4	WTD currently has 6 tankers

Q. Odor Issues (Paragraph 28)

CCH continues to publicize its odor complaint hotline (808) 768-7272 and records trouble calls in its maintenance management system for at least five years.

CCH publishes the Trouble Hotline telephone number on its external web site and in its local telephone directory. All calls related to odors are tracked in the CSM computerized maintenance management system (CMMS). Follow-up and/or resolution for each complaint is

also tracked in the database system. During Year Four, CCH received and investigated approximately 142 odor complaints. CCH investigated each complaint and took appropriate follow-up actions as needed. In most cases the odor could not be identified as attributable to the wastewater collection system. When a collection system issue was identified, CCH took appropriate actions including applying silicone seal around manhole lids or cleaning the sewer main.

R. Spill Response, Monitoring, and Reporting (Paragraph 29)

CCH submitted the Spill Response, Monitoring and Reporting procedures on 12/14/2011. EPA and DOH approved this Report on 8/14/2013.

S. Honouliuli Wastewater Treatment Plant (Paragraph 30)

CCH has withdrawn its appeal of EPA's denial of a permit for the Honouliuli WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Honouliuli WWTP.

T. Sand Island Wastewater Treatment Plant (Paragraph 31)

CCH has withdrawn its appeal of EPA's denial of a permit for the Sand Island WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Sand Island WWTP.

U. Treatment Plant Interim Effluent Limits (Paragraph 32)

The CD includes interim effluent limits for total suspended solids (TSS) and bio-chemical oxygen demand (BOD) for the Sand Island and Honouliuli treatment plants. Data for these constituents and compliance with these limits are reported in the Discharge Monitoring Report (DMR) provided monthly to EPA and DOH.

V. Treatment Plant Operation and Maintenance (Paragraph 33)

EPA and DOH approved Sand Island Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

EPA and DOH approved Honouliuli Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

Attachment A

Pipe Segments in Rehabilitation and Replacement Program

The CD paragraph 34.d.iii notes that for the Annual Report:

For each gravity main rehabilitated or replaced, CCH shall provide the following information:

- a) the pipe identification number;
- b) whether the pipe was repaired, rehabilitated or replaced;
- c) the length of the gravity main claimed as credit towards the R/R Plan mileage requirements and the length of repair, rehabilitation or replacement performed;
- d) the pipe material;
- e) the diameter of the pipe;
- f) the original installation date of the gravity main at issue;
- g) the most recent condition assessment of the gravity main prior to its rehabilitation or replacement; and
- h) a map depicting the location of each gravity main rehabilitated or replaced.

The following table provides information on the gravity mains proposed for addition to the rehabilitation and replacement bank.

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1180	4014194	TCP	8	78		Rehabilitation	8/8/2013	68	4/6/2010
1320	413595	VCP	8	308		Rehabilitation	7/11/2013	309	N/A
1320	413629	VCP	8	295		Rehabilitation	7/11/2013	295	N/A
1320	413732	VCP	8	289		Rehabilitation	7/19/2013	291	12/19/2011
1320	413790	VCP	8	138		Rehabilitation	7/19/2013	145	12/20/2011
1320	413837	VCP	8	350		Rehabilitation	7/19/2013	359	N/A
1320	413889	VCP	8	300		Rehabilitation	7/19/2013	302	N/A
1320	413901	VCP	8	250		Rehabilitation	7/18/2013	249	N/A
1320	414029	VCP	8	126		Rehabilitation	7/12/2013	128	N/A
1320	414098	VCP	8	175		Rehabilitation	8/6/2013	180	N/A
1320	414169	VCP	8	70		Rehabilitation	8/5/2013	62	N/A
1320	414185	VCP	8	86		Rehabilitation	8/8/2013	102	N/A
1320	414242	VCP	8	97		Rehabilitation	8/5/2013	97	N/A
1320	414266	VCP	8	101		Rehabilitation	8/5/2013	103	5/17/2013
1320	414293	VCP	8	116		Rehabilitation	8/5/2013	117	N/A
1320	414339	VCP	8	250		Rehabilitation	7/18/2013	251	N/A
1320	457823	VCP	8	133		Rehabilitation	8/7/2013	131	N/A
1320	457853	VCP	8	98		Rehabilitation	8/5/2013	100	N/A
1320	457919	VCP	8	209		Rehabilitation	8/8/2013	211	N/A
1320	457929	VCP	8	169		Rehabilitation	8/6/2013	171	N/A
1320	457940	VCP	8	88		Rehabilitation	8/7/2013	103	12/19/2011
1320	457953	VCP	8	111		Rehabilitation	8/7/2013	115	N/A
1320	458036	VCP	8	203		Point Repair	8/6/2013	200	N/A
1320	458039	VCP	8	246		Rehabilitation	8/7/2013	251	N/A
1320	458082	VCP	8	131		Rehabilitation	8/7/2013	134	12/19/2011
1320	458114	VCP	8	135		Rehabilitation	8/7/2013	138	12/19/2011
1320	458124	VCP	8	217		Rehabilitation	8/7/2013	220	12/19/2011
1320	458157	VCP	8	214		Point Repair	8/5/2013	217	N/A
1320	458172	VCP	8	164		Rehabilitation	8/8/2013	166	12/20/2011
1320	458253	VCP	8	75		Rehabilitation	8/6/2013	77	N/A
1320	458296	VCP	8	171		Rehabilitation	8/6/2013	175	N/A
1320	458317	VCP	8	95		Rehabilitation	8/6/2013	101	12/12/2011
1320	458338	VCP	8	140		Rehabilitation	8/8/2013	142	12/20/2011
1320	458376	VCP	8	250		Rehabilitation	8/6/2013	258	12/13/2011
1320	459038	VCP	8	80		Point Repair	8/7/2013	85	N/A
1320	670474	VCP	6	122		Rehabilitation	7/9/2013	124	N/A
1320	670478	VCP	6	133		Rehabilitation	7/9/2013	134	N/A
1320	670487	VCP	6	256		Rehabilitation	7/9/2013	257	N/A
1320	670606	VCP	6	61		Rehabilitation	7/9/2013	64	N/A
1320	670618	VCP	8	150		Rehabilitation	7/10/2013	149	12/6/2011
1320	670646	VCP	8	150		Rehabilitation	7/10/2013	149	12/6/2011
1320	800862	VCP	8	120		Rehabilitation	7/10/2013	153	N/A
1322	319661	TCP	6	200		Point Repair	7/24/2013	199	10/27/2011
1340	250998	VCP	8	304		Point Repair	8/26/2013	308	5/3/2012
1340	255455	VCP	6	111		Point Repair	8/26/2013	116	3/29/2012

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1340	255520	VCP	6	250		Point Repair	8/26/2013	252	4/7/2012
1340	255563	VCP	6	250		Point Repair	8/27/2013	252	4/12/2012
1340	255703	VCP	6	131		Point Repair	8/27/2013	132	4/7/2012
1340	255764	VCP	6	250		Point Repair	8/27/2013	253	4/12/2012
1340	255789	VCP	6	250		Point Repair	8/23/2013	249	4/11/2012
1340	257469	VCP	6	283		Point Repair	8/22/2013	283	5/19/2012
1340	257529	VCP	6	275		Point Repair	8/22/2013	272	4/13/2012
1340	257576	VCP	6	150		Point Repair	8/27/2013	152	4/13/2012
1340	257609	VCP	6	230		Point Repair	8/23/2013	234	4/23/2012
1340	277591	TCP	8	250		Rehabilitation	8/26/2013	254	5/2/2012
1340	286720	VCP	6	250		Rehabilitation	8/28/2013	248	4/11/2012
1340	286748	VCP	6	250		Point Repair	8/27/2013	254	4/10/2012
1340	286909	TCP	6	352		Rehabilitation	8/28/2013	355	4/10/2012
1340	287028	VCP	6	235		Point Repair	8/28/2013	235	4/17/2012
1340	287260	TCP	6	172		Point Repair	8/27/2013	192	5/8/2012
1340	287734	TCP	8	213		Point Repair	8/26/2013	216	4/10/2012
1340	288570	TCP	6	226		Point Repair	8/13/2013	226	5/1/2012
1340	288834	VCP	8	56		Point Repair	8/20/2013	52	5/2/2012
1340	290026	TCP	8	86		Rehabilitation	8/28/2013	98	N/A
1340	294067	VCP	6	194		Point Repair	8/29/2013	192	4/11/2012
1340	4023862	TCP	6	133		Point Repair	8/15/2013	131	6/9/2012
1345	471704	VCP	10	253		Point Repair	7/3/2013	245	2/21/2012
1345	471770	VCP	8	314		Rehabilitation	7/5/2013	310	3/5/2012
1345	471781	VCP	10	205		Rehabilitation	7/3/2013	201	2/21/2012
1345	471923	VCP	8	214		Point Repair	7/5/2013	209	3/8/2012
1345	472049	VCP	8	245		Point Repair	7/20/2013	243	3/27/2012
1345	472104	VCP	12	200		Point Repair	7/3/2013	193	3/13/2012
1345	472407	VCP	8	257		Rehabilitation	7/5/2013	253	2/29/2012
1345	472539	TCP	6	104		Rehabilitation	7/1/2013	102	3/27/2012
1345	472549	TCP	6	177		Rehabilitation	7/1/2013	179	3/22/2012
1345	472575	TCP	6	226		Point Repair	7/1/2013	107	3/28/2012
1345	472596	TCP	6	237		Rehabilitation	7/1/2013	241	3/20/2012
1345	474065	VCP	8	138		Rehabilitation	7/5/2013	137	3/8/2012
1345	474078	VCP	8	133		Point Repair	7/5/2013	134	3/9/2012
1345	474249	VCP	8	276		Rehabilitation	7/5/2013	273	3/2/2012
1345	474300	VCP	8	224		Rehabilitation	7/3/2013	220	3/2/2012
1345	706463	VCP	8	195		Rehabilitation	7/3/2013	190	3/5/2012
1345	3013312	TCP	6	107		Point Repair	7/1/2013	108	3/23/2012
1355	86468	VCP	6	214		Rehabilitation	7/19/2013	211	N/A
1356	1514	CIP	6	198		Rehabilitation	7/12/2013	194	10/10/2012
1356	2043	VCP	8	175		Rehabilitation	7/5/2013	172	10/9/2012
1356	2453	VCP	8	220		Rehabilitation	7/24/2013	218	10/4/2012
1356	5487	VCP	8	250		Rehabilitation	7/5/2013	247	9/20/2012
1356	5910	VCP	8	275		Rehabilitation	7/25/2013	273	9/24/2012
1356	6361	VCP	12	160		Rehabilitation	9/9/2013	164	5/3/2011

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1356	6396	VCP	12	286		Rehabilitation	9/9/2013	164	3/25/2009
1356	58130	VCP	8	308		Rehabilitation	9/13/2013	296	10/25/2012
1356	58243	VCP	8	164		Rehabilitation	7/11/2013	160	9/30/2012
1356	58271	VCP	8	267		Rehabilitation	7/11/2013	261	10/1/2012
1358	255805	VCP	6	300		Rehabilitation	12/20/2013	301	3/29/2012
1358	257425	VCP	8	213		Rehabilitation	12/11/2013	211	5/14/2012
1358	287217	TCP	8	280		Rehabilitation	12/23/2013	274	4/9/2012
1358	287394	TCP	8	180		Rehabilitation	12/23/2013	179	4/9/2012
1358	288024	TCP	8	158		Rehabilitation	12/9/2013	157	4/11/2012
1358	294733	VCP	8	111		Rehabilitation	12/12/2013	111	4/19/2012
1358	294800	VCP	8	122		Rehabilitation	12/13/2013	121	4/25/2012
1359	290072	VCP	6	270		Point Repair	8/28/2013	312	4/10/2012
1360	287455	TCP	6	90		Point Repair	7/25/2013	89	5/11/2012
1360	287465	TCP	6	115		Point Repair	8/14/2013	112	9/7/2010
1361	4071097	VCP	8	27		Rehabilitation	8/7/2013	27	N/A
1361	4071098	VCP	8	13		Rehabilitation	8/7/2013	12	N/A
1365	471869	CIP	6	210		Rehabilitation	7/1/2013	208	4/11/2012
1365	472543	CIP	10	300		Rehabilitation	7/3/2013	303	2/24/2012
1370	106933	TCP	6	174		Rehabilitation	10/16/2013	175	6/11/2012
1370	106957	TCP	6	220		Rehabilitation	10/16/2013	218	6/11/2012
1370	107007	TCP	8	241		Rehabilitation	10/18/2013	241	6/14/2012
1370	107122	TCP	6	210		Rehabilitation	10/16/2013	208	6/19/2012
1370	107179	TCP	6	211		Rehabilitation	10/16/2013	212	6/19/2012
1370	107182	TCP	10	229		Rehabilitation	10/22/2013	229	6/15/2012
1370	107293	TCP	6	250		Rehabilitation	10/17/2013	251	6/20/2012
1370	107441	TCP	6	230		Rehabilitation	9/30/2013	229	6/17/2012
1370	121975	VCP	6	279		Rehabilitation	10/24/2013	279	5/8/2012
1370	122138	TCP	6	205		Rehabilitation	10/9/2013	204	7/18/2012
1370	122351	TCP	8	175		Rehabilitation	10/21/2013	174	6/28/2012
1372	324543	TCP	6	164		Rehabilitation	10/10/2013	176	12/27/2010
1381	691023	TCP	6	217		Point Repair	12/27/2013	218	2/21/2012
1382	4075912	VCP	8	14		Rehabilitation	8/9/2013	13	N/A
1382	4075912	VCP	8	14		Rehabilitation	8/9/2013	13	N/A
1385	80908	VCP	8	99		Rehabilitation	7/24/2013	97	9/27/2012
1385	80941	VCP	8	138		Rehabilitation	7/18/2013	134	10/19/2012
1385	80988	VCP	8	86		Rehabilitation	7/25/2013	89	10/10/2012
1385	81030	VCP	8	132		Rehabilitation	7/24/2013	124	10/5/2012
1385	81047	VCP	8	115		Rehabilitation	7/17/2013	113	9/20/2012
1385	86296	VCP	6	134		Rehabilitation	7/22/2013	130	9/21/2012
1385	86307	VCP	8	145		Rehabilitation	7/24/2013	142	9/21/2012
1385	86325	VCP	8	130		Rehabilitation	7/18/2013	131	10/12/2012
1385	86399	VCP	6	151		Rehabilitation	7/18/2013	149	9/21/2012
1385	86428	VCP	6	80		Rehabilitation	7/23/2013	76	9/28/2012
1385	86476	VCP	6	54		Rehabilitation	7/19/2013	53	N/A
1385	86484	VCP	6	146		Rehabilitation	7/17/2013	144	10/4/2012

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1385	86485	VCP	6	165		Rehabilitation	7/19/2013	162	10/9/2012
1385	86493	VCP	6	65		Rehabilitation	7/17/2013	62	10/4/2012
1386	294870	VCP	8	241		Rehabilitation	10/29/2013	242	N/A
1386	294898	VCP	8	97		Rehabilitation	10/29/2013	97	N/A
1386	294909	VCP	8	134		Rehabilitation	10/29/2013	132	N/A
1386	295121	VCP	8	294		Rehabilitation	8/30/2013	293	N/A
1386	295148	VCP	8	269		Rehabilitation	8/30/2013	270	N/A
1386	295231	VCP	8	218		Rehabilitation	9/3/2013	217	11/27/2009
1386	295249	VCP	8	145		Rehabilitation	8/30/2013	144	N/A
1386	295311	VCP	8	178		Rehabilitation	9/4/2013	177	N/A
1386	295365	VCP	8	110		Rehabilitation	12/26/2013	110	10/25/2011
1386	295383	VCP	8	128		Rehabilitation	10/31/2013	124	N/A
1386	295597	VCP	8	92		Rehabilitation	10/31/2013	91	N/A
1386	295698	TCP	8	128		Rehabilitation	12/26/2013	121	10/19/2011
1386	295700	VCP	8	149		Rehabilitation	11/1/2013	149	N/A
1386	295764	TCP	8	121		Rehabilitation	9/5/2013	119	N/A
1386	295846	TCP	8	237		Rehabilitation	10/30/2013	237	N/A
1386	319249	TCP	8	172		Rehabilitation	12/26/2013	173	10/20/2011
1387	396477	VCP	10	90	6/30/1949	Rehabilitation	11/6/2013	85	N/A
1387	436059	VCP	8	178	6/30/1950	Point Repair	10/5/2013	174	10/21/2011
1387	436217	VCP	8	110	6/30/1950	Rehabilitation	11/4/2013	110	11/15/2011
1387	436652	VCP	12	147	6/30/1950	Rehabilitation	11/6/2013	153	11/2/2011
1387	437198	VCP	8	155	12/23/1958	Point Repair	11/4/2013	153	11/4/2011
1387	437315	VCP	8	260	12/23/1958	Point Repair	11/5/2013	252	10/20/2011
1387	437406	VCP	8	255	12/23/1958	Rehabilitation	11/4/2013	252	10/20/2011
1387	437525	VCP	8	70	12/23/1958	Rehabilitation	11/5/2013	70	10/20/2011
1387	437983	VCP	8	134	12/23/1958	Point Repair	11/5/2013	131	10/20/2011
1387	705605	VCP	6	116	12/23/1958	Point Repair	11/4/2013	109	10/28/2011
1387	706410	VCP	8	177	12/23/1958	Rehabilitation	11/5/2013	172	11/16/2011
1388	55856	CIP	8	109		Rehabilitation	12/20/2013	109	10/17/2012
1388	65330	VCP	10	144		Rehabilitation	12/20/2013	144	10/15/2012
1388	80917	VCP	8	214		Rehabilitation	12/20/2013	214	9/27/2012
1388	81036	VCP	8	215		Rehabilitation	1/6/2014	215	9/24/2012
1388	81039	VCP	8	220		Rehabilitation	1/8/2014	220	9/24/2012
1388	86312	VCP	6	250		Rehabilitation	12/19/2013	250	9/28/2012
1388	86313	VCP	8	239		Rehabilitation	1/7/2014	239	10/8/2012
1388	86374	VCP	6	68		Rehabilitation	12/19/2013	68	9/21/2012
1389	279241	VCP	8	166		Rehabilitation	1/8/2014	164	4/30/2012
1389	279917	VCP	6	152		Rehabilitation	12/19/2013	127	6/11/2012
1389	287374	TCP	6	75		Rehabilitation	12/18/2013	74	4/27/2012
1389	287561	VCP	8	185		Point Repair	12/27/2013	185	4/13/2012
1389	287771	VCP	8	125		Rehabilitation	1/9/2014	124	4/12/2012
1389	288449	VCP	15	137		Rehabilitation	1/16/2014	136	5/7/2012
1389	288528	VCP	15	136		Rehabilitation	1/16/2014	136	12/29/2010
1389	288826	VCP	8	175		Rehabilitation	1/7/2014	176	6/11/2012

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1389	289612	TCP	6	150		Point Repair	12/27/2013	148	5/14/2012
1390	255340	TCP	6	114		Rehabilitation	12/10/2013	114	8/17/2011
1390	255633	TCP	6	124		Rehabilitation	12/6/2013	118	10/7/2011
1390	255684	TCP	6	143		Rehabilitation	12/6/2013	134	8/16/2011
1390	257389	VCP	6	88		Rehabilitation	12/6/2013	85	7/12/2011
1390	286528	TCP	6	197		Rehabilitation	12/6/2013	197	9/29/2011
1390	287244	TCP	6	183		Rehabilitation	12/10/2013	175	10/21/2013
1392	4079656	TCP	6	88		Rehabilitation	9/6/2013	86	N/A
1393	260126	VCP	8	262		Rehabilitation	1/30/2014	262	4/11/2012
1393	260211	VCP	8	77		Rehabilitation	1/31/2014	77	7/27/2009
1393	295842	VCP	8	238		Rehabilitation	1/31/2014	238	5/2/2012
1393	296598	VCP	8	138		Rehabilitation	1/31/2014	138	5/2/2012
1394	86991	VCP	12	105		Rehabilitation	9/4/2013	98	4/23/2013
1394	86993	VCP	12	121		Rehabilitation	9/5/2013	119	4/23/2013
1394	86997	VCP	12	144		Rehabilitation	9/4/2013	141	4/10/2013
1394	86998	VCP	12	195		Rehabilitation	9/5/2013	189	4/23/2013
1394	87003	VCP	12	295		Rehabilitation	9/4/2013	292	4/10/2013
1394	87003	VCP	12	295		Rehabilitation	9/4/2013	292	4/10/2013
1394	87015	VCP	12	195		Rehabilitation	9/5/2013	192	4/23/2013
1394	87027	VCP	12	162		Rehabilitation	9/10/2013	148	4/11/2013
1394	87028	VCP	12	124		Rehabilitation	9/10/2013	116	4/23/2013
1394	87033	VCP	12	298		Rehabilitation	9/30/2013	288	4/10/2013
1394	87034	VCP	12	94		Rehabilitation	10/18/2013	91	4/23/2013
1394	87041	VCP	8	34		Rehabilitation	9/11/2013	32	4/10/2013
1394	87096	VCP	8	233		Rehabilitation	9/12/2013	244	4/10/2013
1394	87124	VCP	8	242		Rehabilitation	9/11/2013	236	4/10/2013
1394	1001083	VCP	12	200		Rehabilitation	9/5/2013	198	4/23/2013
1395	87194	VCP	8	315		Rehabilitation	8/9/2013	311	4/10/2013
1395	87195	VCP	8	201		Rehabilitation	8/8/2013	200	6/24/2009
1395	87668	VCP	8	73		Rehabilitation	8/27/2013	74	4/10/2013
1395	88178	VCP	8	148		Rehabilitation	8/27/2013	144	4/10/2013
1395	88227	VCP	8	193		Rehabilitation	8/8/2013	192	4/8/2013
1395	88238	VCP	8	227		Rehabilitation	9/13/2013	219	4/10/2013
1395	88308	VCP	8	107		Rehabilitation	10/3/2013	105	4/8/2013
1395	88313	VCP	8	237		Rehabilitation	8/28/2013	236	4/8/2013
1395	88342	VCP	8	241		Rehabilitation	10/3/2013	238	4/8/2013
1395	88350	VCP	8	116		Rehabilitation	10/3/2013	111	4/8/2013
1395	88362	VCP	8	180		Rehabilitation	10/2/2013	177	4/8/2013
1395	88365	VCP	8	137		Rehabilitation	8/28/2013	136	4/23/2013
1395	88378	VCP	8	275		Rehabilitation	10/2/2013	270	4/5/2013
1395	89497	VCP	8	113		Rehabilitation	8/28/2013	113	4/12/2013
1395	89535	VCP	8	113		Rehabilitation	8/27/2013	111	4/12/2013
1395	89554	VCP	8	113		Rehabilitation	8/27/2013	114	4/12/2013
1395	89573	VCP	8	113		Rehabilitation	8/27/2013	113	4/12/2013
1395	89591	VCP	8	113		Rehabilitation	8/27/2013	113	4/12/2013

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1396	423303	VCP	8	203		Point Repair	1/28/2014	203	8/29/2013
1396	423351	VCP	8	128		Rehabilitation	1/17/2014	128	8/29/2013
1396	423585	VCP	8	171		Point Repair	1/28/2014	171	10/30/2009
1396	4039015	VCP	10	193		Rehabilitation	1/28/2014	193	N/A
1396	4039017	VCP	10	177		Rehabilitation	1/28/2014	177	8/21/2013
1396	4043076	VCP	6	173		Rehabilitation	1/24/2014	173	N/A

Attachment B

Problem Laterals Addressed in Year Four

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
1005345	FLUSHING	12/18/2013	193.3
154583	FLUSHING	10/9/2013	18
244597	FLUSHING	7/10/2013	25.97
244597	FLUSHING	10/14/2013	25.97
244597	FLUSHING	1/15/2014	25.97
244597	FLUSHING	4/1/2014	25.97
277958	FLUSHING	7/8/2013	48.55
277958	FLUSHING	10/7/2013	48.55
277958	FLUSHING	1/7/2014	48.55
277958	FLUSHING	4/9/2014	48.55
280797	FLUSHING	8/1/2013	95
280797	FLUSHING	2/19/2014	95
3005364	FLUSHING	2/24/2014	58
384182	FLUSHING	8/7/2013	32.03
384182	FLUSHING	2/5/2014	32.03
384609	FLUSHING	8/12/2013	32.8
384609	FLUSHING	11/22/2013	32.8
384609	FLUSHING	2/9/2014	32.8
384609	FLUSHING	6/25/2014	32.8
384638	FLUSHING	8/12/2013	32.8
384638	FLUSHING	11/22/2013	32.8
384638	FLUSHING	2/9/2014	32.8
384638	FLUSHING	6/25/2014	32.8
437420	FLUSHING	12/19/2013	4
437470	FLUSHING	8/19/2013	25
471744	FLUSHING	8/19/2013	75
497927	FLUSHING	10/21/2013	160
543127	FLUSHING	9/18/2013	37
578110	FLUSHING	4/22/2014	35
601004	FLUSHING	10/15/2013	82
601013	FLUSHING	10/15/2013	82
61009	FLUSHING	4/30/2014	20.66
61040	FLUSHING	4/30/2014	4
615463	FLUSHING	4/23/2014	40
673516	FLUSHING	4/21/2014	54
685234	FLUSHING	5/4/2014	52.57
685234	FLUSHING	5/5/2014	52.57
13160	MECHANICAL CLEANING	11/5/2013	13
146824	MECHANICAL CLEANING	5/5/2014	30.5
215755	MECHANICAL CLEANING	4/2/2014	18.12
218986	MECHANICAL CLEANING	4/2/2014	7.39
226925	MECHANICAL CLEANING	10/5/2013	37
226925	MECHANICAL CLEANING	12/14/2013	37
226925	MECHANICAL CLEANING	2/5/2014	37
2516	MECHANICAL CLEANING	6/25/2014	15
257315	MECHANICAL CLEANING	9/18/2013	71.19

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
257315	MECHANICAL CLEANING	3/21/2014	71.19
277738	MECHANICAL CLEANING	10/3/2013	15.55
277738	MECHANICAL CLEANING	2/27/2014	15.55
3002654	MECHANICAL CLEANING	7/20/2013	38.86
3002654	MECHANICAL CLEANING	7/31/2013	38.86
3002654	MECHANICAL CLEANING	8/15/2013	38.86
3002654	MECHANICAL CLEANING	9/5/2013	38.86
3002654	MECHANICAL CLEANING	10/5/2013	38.86
3002654	MECHANICAL CLEANING	12/3/2013	38.86
3002654	MECHANICAL CLEANING	1/6/2014	38.86
3002654	MECHANICAL CLEANING	3/12/2014	38.86
3002654	MECHANICAL CLEANING	5/17/2014	38.86
3004091	MECHANICAL CLEANING	12/9/2013	38.59
3004091	MECHANICAL CLEANING	3/20/2014	38.59
3004091	MECHANICAL CLEANING	6/21/2014	38.59
375699	MECHANICAL CLEANING	7/31/2013	38.43
384057	MECHANICAL CLEANING	7/29/2013	31.73
384057	MECHANICAL CLEANING	11/2/2013	31.73
413751	MECHANICAL CLEANING	9/13/2013	73
413751	MECHANICAL CLEANING	3/22/2014	73
53676	MECHANICAL CLEANING	3/24/2014	19
54977	MECHANICAL CLEANING	4/29/2014	4
54983	MECHANICAL CLEANING	5/5/2014	1
54991	MECHANICAL CLEANING	4/29/2014	0.5
54992	MECHANICAL CLEANING	5/5/2014	3
54999	MECHANICAL CLEANING	4/29/2014	3
55016	MECHANICAL CLEANING	5/5/2014	1
61016	MECHANICAL CLEANING	5/5/2014	1
61877	MECHANICAL CLEANING	9/4/2013	27
690189	MECHANICAL CLEANING	7/23/2013	8
115226	Repair	7/24/2013	3
146868	Repair	3/20/2014	3.17
146939	Repair	10/30/2013	0.5
161290	Repair	2/27/2014	1
161767	Repair	11/14/2013	10
166404	Repair	2/27/2014	4
189911	Repair	10/18/2013	2
215712	Repair	5/20/2014	6
215714	Repair	6/16/2014	5
215715	Repair	5/23/2014	4
215755	Repair	6/20/2014	1.67
219189	Repair	5/5/2014	5
280807	Repair	11/6/2013	2
280807	Repair	11/8/2013	2
288008	Repair	2/26/2014	10
288291	Repair	4/15/2014	0

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
3004091	Repair	11/14/2013	38.59
3008458	Repair	6/3/2014	5
319934	Repair	7/19/2013	52
332520	Repair	9/6/2013	1.5
4008439	Repair	8/22/2013	5
4079729	Repair	2/3/2014	5
438329	Repair	2/21/2014	10
457834	Repair	10/9/2013	1
471744	Repair	8/23/2013	3.42
509986	Repair	8/27/2013	1.42
517981	Repair	2/28/2014	1.08
5610	Repair	9/12/2013	13.2
5617	Repair	6/13/2014	7
5621	Repair	9/17/2013	34.8
564716	Repair	8/1/2013	1
588363	Repair	10/30/2013	1
590695	Repair	9/20/2013	35
590695	Repair	8/30/2013	12
590731	Repair	9/20/2013	28.14
590813	Repair	2/27/2014	4
595631	Repair	4/3/2014	12
613325	Repair	3/5/2014	3
61877	Repair	9/4/2013	3.58
6310	Repair	11/1/2013	32.81
660136	Repair	3/20/2014	4.42
670243	Repair	9/25/2013	3
675905	Repair	10/25/2013	34.83
675905	Repair	8/25/2013	12
689707	Repair	3/17/2014	4
4067515	VIS INSP	2/20/2014	16.52
4067515	VIS INSP	2/28/2014	16.52
4067515	VIS INSP	5/20/2014	16.52
4067518	VIS INSP	2/20/2014	15.22
4067518	VIS INSP	2/28/2014	15.22
4067518	VIS INSP	5/20/2014	15.22
4067521	VIS INSP	9/5/2013	15.74
4067521	VIS INSP	3/5/2014	15.74
4067524	VIS INSP	7/3/2013	19.65
4067524	VIS INSP	11/23/2013	19.65
4067524	VIS INSP	3/5/2014	19.65
4078137	VIS INSP	2/20/2014	0
4078137	VIS INSP	2/28/2014	0
4078137	VIS INSP	5/20/2014	1
419688	VIS INSP	2/20/2014	224.93